

PSYCHOLOGICAL ABSTRACTS

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GENERAL

(incl. Statistics)

1137. Allport, G. W. Dewey's individual and social psychology. In P. A. Schilpp, *The Library of Living Philosophers*, Vol. I. Evanston: Northwestern Univ. Press, 1939. Pp. 265-290.—Dewey's psychology is subordinate to his philosophical thought: he is concerned primarily "with the norms of experience and conduct; with their psychological machinery he has less to do." His influence upon psychological thought has been threefold: (1) His followers prefer "a thoroughgoing organismic psychology, preferably one that has a strong social emphasis." (2) "He has made psychological propositions indispensable to philosophy." (3) He has shown that psychology "is in essence the science of democratic living."—F. W. Finger (Brown).

1138. Alpert, H. Emilio Durkheim y la psicología sociológica. (Emile Durkheim and sociological psychology.) *Rev. mex. Sociol.*, 1939, 1, 134-139.—This article is a discussion of the views of Durkheim concerning the necessity of making psychology conscious of the contributions of sociology. Society forces man to subjugate his biological nature, but it also gives him an opportunity for expression; hence it has a dual nature. Society is not only restrictive but creative as well. Durkheim claimed that "man is human only because he is civilized." Society and not nature permits the development of personality. Personality can be expressed only through the representations placed upon the individual by society. Our values, ideals, fears, loves, and hates are acquired, and hence a psychology of human nature must be sociological. If society were the reflection of our biological natures, there would be no conflict between the biological self and the social self. Sociologists have made a number of grievous errors in the development of their systems of thought. They have frequently overlooked individual differences among men; they have, like Durkheim, tended to invent or use psychological concepts used by the man in the street; they too frequently have considered society and social forces as if they were objective in nature; and last, they have too often overlooked the biological bases of human nature.—J. W. Nagge (Emporia State College).

1139. Amdur, M. K., & Messinger, E. Jean-Etienne-Dominique Esquirol. His work and importance for modern psychiatry. *Amer. J. Psychiat.*, 1939, 96, 129-135.—Esquirol is credited with "discovering" dementia paralytica in the 19th century. His great work was the reorganization of the French hospital system.—R. Goldman (Boston Psychopathic Hospital).

1140. [Anon.] Edward Alexander Westermarck: 1862-1939. *Amer. J. Sociol.*, 1939, 45, 452.—Obituary.—D. L. Glick (Brown).

1141. [Anon.] Sigmund Freud: 1856-1939. *Amer. J. Sociol.*, 1939, 45, 453.—Obituary.—D. L. Glick (Brown).

1142. [Anon.] Obituary, Professor Sigmund Freud. *Brit. med. J.*, 1939, 705-707.—W. J. Brogden (Wisconsin).

1143. Beniuc, M. Spatiul psihologic. (Psychological space.) *Rev. Psihol.*, 1939, 2, 231-252.—A critical review of the theories of Uexküll, Köhler, Koffka, and especially Lewin on the relation between the organism and its environment.—N. Marginean (Cluj, Rumania).

1144. Bogner, H. Der Seelenbegriff der griechischen Frühzeit. (The concept of mind in Greek antiquity.) Hamburg: Hanseat. Verlagsanstalt, 1939. Pp. 39. RM. 1.50.—The Homeric man is the prototype of man the dominator, in whom instinct is not contrasted with rational insight. Natural dispositions correspond to values; life is uncomplicated. In the classical period the state is the carrier of mentality, preventing individual deviations; this first appears in the beginnings of Attic tragedy.—P. L. Krieger (Leipzig).

1145. Bose, S. S. Relative efficiencies of regression coefficients estimated by the method of finite differences. *Sankhyā, Indian J. Statist.*, 1938, 3, Part 4.

1146. Brill, A. A. Sigmund Freud 1865-1939. Jekels, L. In memoriam Sigmund Freud. *Psychoanal Quart.*, 1939, 8, 409; 410-411.—Brill emphasizes the permanent character of Freud's contributions to science, however much time may modify them, while Jekels pays tribute to the inspirational character of Freud's personality and his direct and lasting influence upon others. Portrait.—M. H. Erickson (Eloise Hospital).

1147. Chapman, R. A. Applicability of the z test to a Poisson distribution. *Biometrika*, 1939, 30, 188-190.—The conclusion that the z test is applicable to skewed as well as to normal distributions is verified.—E. R. Henry (New York University).

1148. Chiba, T. Übersicht über Brentano-Studien in Nippon. (A review of studies on Brentano in Japan.) *Tohoku psychol. Folia*, 1937, 7, 147-158.—T. Chiba (Sendai).

1149. Croxton, F. E., & Cowden, D. J. Applied general statistics. New York: Prentice-Hall, 1939. Pp. xviii + 944 + xiii. \$4.00.—This book is designed to serve either as an elementary or as an advanced text. The illustrative material is drawn mainly from economics, sociology, and business.

The argument is divided into 25 chapters, which include: introduction; statistical data; statistical tables; graphic presentation: simple curves, the semi-logarithmic or ratio chart, and other types of charts; ratios and percentages; the frequency distribution; measures of central tendency; dispersion, skewness, and kurtosis; describing a frequency distribution by a fitted curve; reliability and significance of statistical measures: arithmetic means, percentages, standard deviations, variances, and the criterion of likelihood; the problem of time series; analysis of time series—secular trend; other trend types; periodic movements; types of seasonal movements; cyclical movements; fundamentals in index-number construction; index-number theory and practice; simple correlation; non-linear correlation; multiple and partial correlation; correlation of time series and forecasting. Tests of significance include the chi-square test; several sections are devoted to the analysis of variance. Over 100 pages of appendix include bibliographic sources, aids to calculation, formulae, tables, and a glossary of statistical terms.—*J. McV. Hunt* (Brown).

1150. Dallenbach, K. M. Margaret Floy Washburn. *Science*, 1939, 90, 555-557.—An obituary notice and an appreciation.—*F. A. Mote, Jr.* (Brown).

1151. Enlow, E. R. What the statistical slide rule will do. *Peabody J. Educ.*, 1939, 16, 292-295.—Data are cited to show that such operations as interpolation for the median, correction for the arithmetic mean, coefficient of regression, standard deviation, coefficient of correlation, and the like are facilitated by the statistical slide rule.—*N. B. Cuff* (Eastern Kentucky).

1152. Finney, D. J. The distribution of the ratio of estimates of the two variances in a sample from a normal bivariate population. *Biometrika*, 1938, 30, 190-192.—The distribution of this ratio has been investigated by Bose (1935) by a method dependent on term-by-term integration of infinite series. The simplicity of the results suggested the more direct approach given here. It is also shown that a transformation of existing tables may yield a test of significance to be applied when the population correlation is known and how the test may be used when only a sample estimate of correlation is known.—*E. R. Henry* (New York University).

1153. Gemelli, A. Le applicazioni della psicologia ai fini della vita autarchica della nazione. (Applications of psychology to the aims of the autarchical life of the nation.) *Ric. sci.*, 1938, 10, 383.—*R. Ricci* (Rome).

1154. Hey, G. B. A new method of experimental sampling illustrated on certain non-normal populations. *Biometrika*, 1938, 30, 68-80.—*E. R. Henry* (New York University).

1155. Instituto Nacional de Psicotecnia. Psicotecnia. Madrid: Instituto Nacional de Psicotecnia. Vol. 1, No. 1, October 1939. Quarterly. 15 ptas.

1156. Kendall, M. G. A new measure of rank correlation. *Biometrika*, 1938, 30, 81-93.—Kendall proposes a new measure of rank correlation τ , more easily computed than Spearman's ρ and having the advantage that the distribution of τ is normal not only for large values of N (as is ρ) but also for very small values. The values of τ are near those of ρ at some magnitudes, but differ appreciably at others. A formula for the standard error of τ is also derived. This new measure seems to have some obvious uses in psychological experiments where ranks are the desiderata.—*E. R. Henry* (New York University).

1157. Kendall, M. G., Kendall, S., & Smith, B. B. The distribution of Spearman's coefficient of rank correlation in a universe in which all rankings occur an equal number of times. *Biometrika*, 1938, 30, 251-273.—On the basis of both a theoretical derivation and a controlled empirical analysis it is shown that for values of $N > 10$ (and possibly higher) the distribution of ρ is not adequately represented by a normal distribution. A "B" curve is sufficient to determine approximate significance points where $N < 7$. A comparison of ρ and Kendall's τ yields an "extremely high" correlation, and since both τ and its sampling distribution are easily obtained it is suggested that τ may be of greater practical value than ρ .—*E. R. Henry* (New York University).

1158. Loomba, R. M. Emotional intuitivism in axiology. *Phil. Quart.*, India, 1937, 13, No. 2.—The phenomenological contentions (as formulated by Max Scheler) that values are known by an emotional intuition in which an intentional function and a content may be distinguished, as in perception, and that a realm of value qualities exists independently of the natural world, are criticized.—*J. H. Jackson* (Brown).

1159. McMullen, L. William Sealy Gossett, 1876-1937. I. "Student" as a man. *Biometrika*, 1938, 30, 205-210.—A memorial on the death of "Student," who contributed widely to the field of statistics from his position with the Guinness Breweries.—*E. R. Henry* (New York University).

1160. Metelli, F. Activitatea științifică a institutului de psihologie din Padova. (Scientific activity of the institute of psychology at Padua.) *J. Psihotek.*, 1939, 3, 63-80.—A review of the psychological activity developed by Benussi and Musatti. There are described the work of Benussi concerning suggestion and that of Musatti and his collaborators on perception, images, dreams, and testimony. French summary.—*N. Marginean* (Cluj, Rumania).

1161. Muenzinger, K. F. Psychology: the science of behavior. Denver: World Press, 1939. Pp. xiii + 270. \$2.00.—This volume is intended to present an elementary outline of psychology "written from a unifying and all-inclusive single theoretical standpoint." The standpoint is described by the author as "a variety of purposive behaviorism, a behaviorism which is psychological and not physiological." The 14 chapters are entitled: scientific analysis of behavior; motivation; discrimination; performance; affectivity; nervous processes and re-

flex activity; psychophysiology of motivation; psychophysiology of discrimination; psychophysiology of performance; psychophysiology of affectivity; static individual differences; dynamic individual differences; structure and reorganization of personality; uniformity of behavior. Analytical outlines are given at the beginnings of chapters. The volume concludes with a 7-page combined glossary and index.—C. K. Trueblood (Harvard).

1162. Pearson, E. S. The probability integral transformation for testing goodness of fit and combining independent tests of significance. *Biometrika*, 1938, 30, 134-148.—E. R. Henry (New York University).

1163. Pearson, E. S. William Sealy Gossett, 1876-1937. II. "Student" as statistician. *Biometrika*, 1938, 30, 210-250.—The contributions to statistical technique by "Student" included 22 major papers and a number of shorter articles. Pearson reviews critically these contributions.—E. R. Henry (New York University).

1164. Petter, D. de, & others. [Eds.] *Tijdschrift voor filosofie*. Leuven: N. V. Vereeniging voor Wijsgeerte. Volume 1, No. 1, February, 1939. Quarterly. 120 fr.

1165. Rhine, J. B. Requirements and suggestions for an ESP test machine. *J. Parapsychol.*, 1939, 3, 3-10.—The general requirements for an adequate ESP test machine are described. These demand that the machine be extraordinarily stable, of simple design, not subject to tampering, and capable of rapid operation. The machine should make mechanical selections, at random, of test material, and should record results reliably and fully. Detailed suggestions are offered, with further proposals of desirable modifications.—C. E. Stuart (Duke).

1166. Riordan, F. M. *Elementary psychology*. Brooklyn: Amer. Educ. Ass., 1939. Pp. 85. \$1.00.—The contents of this book are presented under the following chapter headings: Approaches to Psychology, Consciousness, Sensation, Perception, Imagination, Memory, Association of Ideas, Conception, Discrimination and Comparison, Judgment, Reasoning, Reflexes and Instincts, Habit, Emotions, Volition. A list of references and questions for discussion follows each chapter.—M. Keller (Yale).

1167. Schorn, M. *Wahrscheinlichkeit oder Gewissheit—Zufall oder Gesetzmässigkeit*. (Probability or certainty—chance or law.) *Industr. Psychotech.*, 1939, 16, 161-169.—An introduction to the philosophical-statistical ideas of K. Marbe. An analytical discussion is given of frequencies in games of chance and skill, of the problem of accident repetition, and of the sex ratio of births.—D. M. Purdy (Mills).

1168. Spearman, C. The "London" school of psychology. *Rev. Psihol.*, 1939, 2, 207-216.—The article is in compliance with the invitation of the *Revista de Psihologie* to outline the work that has come to be known under the title given.—N. Marginean (Cluj, Rumania).

1169. Taves, E. A machine for research in extra-sensory perception. *J. Parapsychol.*, 1939, 3, 11-16.—A machine sets up, by remote control, 150 stimulus objects to be guessed. It consists of "a large tray divided into 150 small compartments—six rows of twenty-five. Each compartment can contain a disc, or a regular solid polygon, such as a die. The tray is electrically rotated, and is brought to rest in a horizontal position, a photograph of the set-up being taken by remote control."—C. E. Stuart (Duke).

1170. Tschuprow, A. A. *Principles of the mathematical theory of correlation*. (Trans. by M. Kantorowitsch.) London: Hodge; New York: Nordemann, 1939. Pp. 194. \$3.75.—This book is designed to provide the reader with a logical foundation of the theory of correlation; for the most part it is expressed in elementary algebra. The work begins with a consideration of discontinuous distributions and the laws of dependence, in an attempt to tie together the so-called non-mathematical and mathematical theories of association. The first chapters are devoted to specific problems and their interpretation, while the later ones are given to generalizing the mathematical form of correlation. In presenting the various derivations details have been omitted from the body of the text, but are presented in the appendix.—J. W. Dunlap (Rochester).

1171. Uhrlirz, R. *Die vitale Energieform des Kerneiwisses als Unterscheidungsgrundlage zwischen geistigen und seelischen Funktionen*. (The vital energy form of nuclear albumen as the basis of distinction between mental and spiritual functions.) *Wien. med. Wschr.*, 1939, 89, Pt. I, 229-232.—Mental functions consist in physicochemical processes which result in the release of potential and kinetic molecular energies. They are recognized by their anatomical course as a process of balance. Only the spiritual—free will—can break through this course of events. The spiritual thus stands above, or at least outside, material processes.—P. L. Krieger (Leipzig).

1172. Welch, B. L. On tests for homogeneity. *Biometrika*, 1938, 30, 149-158.—E. R. Henry (New York University).

1173. Yule, G. U. On some properties of normal distributions univariate and bivariate, based on sums of squares of frequencies. *Biometrika*, 1938, 30, 1-10.—This is a development of various approximations to the standard deviation and correlation coefficient, based upon ideas obtained from some of Yule's notes on Karl Pearson's lectures of 1894.—E. R. Henry (New York University).

[See also abstract 1632.]

NERVOUS SYSTEM

1174. Ayer, J. B. Medical progress; neurology. *New Engl. J. Med.*, 1939, 221, 105-107.—W. J. Brogden (Wisconsin).

1175. Benoit, J., & Kehl, R. *Nouvelles recherches sur les voies nerveuses photoréceptrices*

et hypophyso-stimulantes chez le canard domestique. (New investigations on photoreceptive and hypophysis-stimulating neural pathways in the domestic duck.) *C. R. Soc. Biol. Paris*, 1939, 131, 89-93.—Experiments were made on 12 young male ducks whose hypophysis and hypothalamus were illuminated during three periods of 22 hours each, separated by intervals of 8 days, with a thin luminous ray applied directly by means of a glass tube. In both cases the effect is a strong hypophyseal and gonadal stimulation. The lighting of the prosencephalon has no effect, but that of the rhinencephalon shows a notable development of the testes.—C. Nony (Sorbonne).

1176. Blair, H. A., & Street, S. A histological problem concerning the conditions at the nerve endings in skeletal muscle. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 4-8.—Certain facts concerning the structure and function of the neuromuscular junction are summarized in relation to the electrical and chemical theories of the excitation of skeletal muscle. Five possible relationships of polarized nerve and muscle tissue are analyzed and their consistencies with known facts considered.—H. Peak (Randolph-Macon).

1177. Cannon, W. B. The argument for chemical mediation of nerve impulses. *Science*, 1939, 90, 521-527.—This is an evaluation of the chemical and electrical theories of nerve transmission. A comparison of the two theories is made and evidence from experiments with eserine, curare, different rates and periods of stimulation, and degeneration of nerves and muscles is cited. The author concludes that the chemical theory is adequate to explain nervous transmission.—F. A. Mote, Jr. (Brown).

1178. Coppée, G. Les voies auditives au niveau de la moelle allongée. Topographie des voies chez le chat et le lapin. (Auditory pathways in the medulla. Topography of the pathways in the cat and rabbit.) *C. R. Soc. Biol., Paris*, 1939, 130, 1364-1366.—The investigation was conducted by the electrophysiological method (one ear is stimulated by means of short clapping noises produced by condenser discharges in a loudspeaker, and the electrical variations at the round window are recorded). In rabbits all the auditory pathways are crossed, while in cats they are both homo- and contralateral; the synaptic delay is slightly shorter in the former (0.77σ) than in the latter (0.9σ).—C. Nony (Sorbonne).

1179. Corbin, K. C., & Harrison, F. The sensory innervation of the spinal accessory and tongue musculature in the rhesus monkey. *Brain*, 1939, 62, 191-197.—Degeneration and oscillographic studies were made on 14 *Macacus rhesus* monkeys in order to determine the course of the proprioceptive fibers from the accessory musculature. Stimulation experiments indicate that the anastomotic branches between the upper cervical ventral rami and the accessory nerve carry sensory fibers only. Section of the ventral ramus C.2 uniformly resulted in the degeneration of from 2 to 5% of the medium to small

sized myelinated fibers in the most peripheral portion of the hypoglossal nerve. These experiments indicate that the accessory musculature of the rhesus monkey is supplied with proprioceptive fibers, the cells of origin of which are situated in the dorsal root ganglia.—W. J. Brogden (Wisconsin).

1180. Dale, H. H. Physiology of the nervous system. *Science*, 1939, 90, 393-394.—The author discusses the evidence that liberation and activity of acetylcholine are in some way essential to transmission at peripheral synapses and motor nerve endings. Such evidence as is available contains points worthy of critical examination by a supporter of the electrical theory, "who, unless he can show that they are not valid as facts, should be prepared to explain how that theory accommodates them."—F. A. Mote, Jr. (Brown).

1181. Dojmi, L. Ein Versuch der Aufklärung der Beziehungen zwischen dem vegetativen Nervensystem und dem psychischen Leben des Menschen. (An attempt to clarify the relation between the vegetative nervous system and man's mental life.) *Wien. med. Wschr.*, 1939, 89, 485-494.—The change in tonus of the vegetative nervous system and the central nervous system is responsible for our entire mental life.—P. L. Krieger (Leipzig).

1182. Drohocki, Z. L'étude électro-encéphalographique des "automatismes" du cerveau. (The electro-encephalographic study of the brain's "automatisms.") *C. R. Soc. Biol. Paris*, 1939, 130, 99-103.—Complex waves observed under narcosis, so regular that they suggest an automatic process, have also been found in the cortex of wakeful animals, and also at infracortical levels; hence the hypothesis of two modes of automatism, one during rest and the other during activity. Narcosis would suppress the former and let the latter persist; on the reverse a stimulation would call forth the latter and block the former. The functional unit of the brain would therefore be neither an isolated cell nor a cytoarchitectonic complex, but a primary structure whose activity is manifested by one of those characteristic automatisms.—C. Nony (Sorbonne).

1183. Drohocki, Z., & Drohocka, Y. La modification caractéristique de l'électrospectrogramme par la narcose. (The characteristic alteration of the electro-spectrogram through narcosis.) *C. R. Soc. Biol., Paris*, 1939, 132, 64-69.—Alterations were studied in the E.S.G. of the area striata, area praecentralis, and hypothalamus in a rabbit's brain during the development of narcosis. Even before the E.E.G. shows any marked differences the E.S.G. shows fairly large ones; specific alterations of the E.S.G. appear before all other electrophysiological symptoms of narcosis; they do not depend upon the nature of the substances used for narcosis, or upon the cytoarchitectonic structure of the area affected by it.—C. Nony (Sorbonne).

1184. Dusser de Barenne, J. G., & McCulloch, W. S. The sensory cortex of the chimpanzee. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 27-29.—Four chimpanzee brains were studied by the method of

local cortical strychninization combined with recording of the electrical activity of the cortex in a fully anesthetized animal. The localization of leg, arm, and face areas is shown in a diagram of the brain of one animal. In broad outline the distribution resembles that of the macaque in occupying a large area on the outer surface of the hemisphere.—*H. Peak* (Randolph-Macon).

1185. **Gerebtzoff, M. A.** Des effets de la stimulation labyrinthique sur l'activité électrique de l'écorce cérébrale. (The effects of labyrinthine stimulation on the electrical activity of the cortex.) *C. R. Soc. Biol., Paris*, 1939, 131, 807-813.—Experiments were made to determine the effect of labyrinthine stimulation on the isolated cortex of cats prepared according to Bremer's method and not under narcosis after the surgical operation was completed. The animals were fixed upon a rotary apparatus permitting artificial respiration and the recording of action potentials; the highest and lowest speeds were one turn per second and one turn per 4 seconds. Three points were investigated: (1) the electrical activity of the cortex during and after rotation (frequency and amplitude varied inversely); (2) the identification of a labyrinth area in the cortex; and (3) that of the labyrinth-cortex pathways.—*C. Nony* (Sorbonne).

1186. **Hellauer, H.** Über den Cholinesterasegehalt nervösen Gewebes. (The cholinesterase content of nerve tissue.) *Pflüg. Arch. ges. Physiol.*, 1939, 242, 382-388.—In organs in which acetylcholine is supposed to play a part in conduction, the proportions of acetylcholine and esterase, as measured by Hellauer's new method, are equal. The adrenergic nerves, however, are an exception, as they contain much esterase and little acetylcholine. The meaning of these findings for nerve conduction is discussed. It appears doubtful that conduction takes place in the same way in all nerves. There appear to be at least two different mechanisms.—*M. E. Morse* (Baltimore).

1187. **Hellauer, H., & Umrath, K.** Über Azetylcholin und Cholinesterase in degenerierenden Nerven. (Acetylcholine and cholinesterase in degenerating nerves.) *Z. Biol.*, 1939, 99, 624-632.—Experiments on frogs and rabbits support the conclusion that acetylcholine is the action substance of motor (but not sensory) nerves of vertebrates.—*P. L. Krieger* (Leipzig).

1188. **Holmes, G.** The cerebellum of man. *Brain*, 1939, 62, 1-30.—*W. J. Brogden* (Wisconsin).

1189. **Hyndman, O. R.** The central visual system. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 735-742.—A case is reported in which removal of a tumor necessitated resecting the right occipital lobe to the tip of the splenium of the corpus callosum, in addition to section of the corpus callosum to a point 5.7 cm. from the posterior tip. Full macular vision was retained after the above operation. It follows that the splenium of the corpus callosum plays no role in the retention of central vision; and that central vision is probably, at least in part, represented an-

terior to the accepted visual cortex and is probably not represented bilaterally.—*W. J. Brogden* (Wisconsin).

1190. **Ito, G., & Kasahara, Y.** Über das Grundproblem der spontanen Schwankungen des Grosshirnstromes. (On the fundamental problem of the spontaneous fluctuations of the brain current.) *Tohoku psychol. Fol.*, 1939, 7, 1-12.—Electroencephalographic studies were made on many Japanese, and from the results the authors conclude that the time from the sense stimulation to the beginning of the suppression of the alpha waves is dependent upon the intensity of the stimulus, and therefore that the sensation time, threshold, or sensitivity, etc., is measurable objectively from this time relation of the suppression of alpha waves.—*T. Fujita* (Sendai).

1191. **Kitamura, K.** Die elektrencephalographische Untersuchung der Geschmacksempfindlichkeit. (The electroencephalographic study of taste sensitivity.) *Tohoku psychol. Fol.*, 1939, 7, 13-32.—The sensitivity of the tongue tip to taste stimuli was determined by measuring the time from the moment of stimulation to the beginning of suppression of alpha waves and the duration of the suppression to the reappearance of alpha waves. Distilled water of 38° C. in a volume of 0.1 c.c., dropped on the tip of the tongue, evoked no sensation and no suppression of alpha waves. This indifferent temperature and volume were taken as the standard for the investigation of several influences on the latent time and duration, such as the temperature, volume, or concentration of the solution of taste substances. The larger the volume and the more intense the concentration, the earlier the suppression of alpha waves took place and the longer it continued. The threshold concentration which evoked just visible suppression was determined for substances representing four taste qualities. For the solution of NaCl the latent time was shortest and the duration longest at moderate temperatures, i.e., it was most active at these temperatures. The time of the suppression of alpha waves to sense stimulation was shorter than the usual reaction time. The acuity of the tongue surface for the taste sensation, measured by the suppression of alpha waves, corresponded with the result obtained by the usual subjective method.—*T. Fujita* (Sendai).

1192. **Lapicque, L.** La relation entre la grosseur et la rapidité des fibres nerveuses. (Relation between size and rate of conduction in nerve fibers.) *C. R. Soc. Biol., Paris*, 1939, 130, 115-118.—A reply to Göthlin, who claims priority in the discovery of a relation between diameter and rate of conduction in nerve fibers. Lapicque admits that Göthlin was the first one to suggest the "cable" hypothesis, but points out that for 10 years (1907 to 1917) he made no use of it, and that in 1913-1914 Lapicque and Legendre first gave a definite expression to the law: The larger the diameter of nerve fibers the quicker their rate of conduction.—*C. Nony* (Sorbonne).

1193. Lapique, L. *Analyse des relations réciproques entre chronaxie, diamètre et vitesse de conduction dans les fibres nerveuses myélinisées.* (An analysis of the mutual relations among chronaxie, diameter, and rate of conduction in myelinated nerve fibers.) *C. R. Soc. Biol., Paris*, 1939, 130, 945-949.—A correction of the author's theory of 1913-14, later verified by Gasser and Erlanger, according to which diameter, chronaxie and rate of conduction vary each with the two others. There seems to be a contradiction between this theory and the observations he now reports, but this is not the case. The 1913-14 experiments, as well as those of Gasser and Erlanger, dealt exclusively with nerves in which each fiber had reached exactly the diameter necessary for the rate of conduction corresponding to the chronaxie (in application of the law of adaptation of an organ to its function), and in such conditions the above conclusions were true. But they are no longer true when the diameter varies: in such cases chronaxie, being a protoplasmic phenomenon, is independent of diameter, as may be observed in nerve fibers of the frog's quadriceps femoris muscle and in regenerated fibers (somewhat smaller than normal fibers) but the rate of conduction is essentially limited by the diameter.—C. Nony (Sorbonne).

1194. Lapique, L. *Sur le rôle du cervelet.* (The role of the cerebellum.) *C. R. Soc. Biol., Paris*, 1939, 131, 556-559.—The author ascribes to the influence of the cerebellum upon the reflex excitability of the cord and peripheral nerves the phenomenon which he calls "subordination," resulting in a change of chronaxie which is sometimes positive (facilitation) and sometimes negative (inhibition).—C. Nony (Sorbonne).

1195. Lapique, L. *Esquisse anatomo-physiologique de la voie cérébello-spinale.* (Anatomophysiological outline of the cerebello-spinal pathway.) *C. R. Soc. Biol., Paris*, 1939, 131, 851-854.—The author suspects a double action of the cerebellum upon the cord: pyramidal fibers would transmit the impulses responsible for muscular contractions, and their action would be facilitated by the potentials of the rubrospinal fibers. The influence of the cerebellum upon the cord would thus be similar to that of a constant electric potential acting upon the chronaxie and producing either blocking or facilitation of the impulses of the pyramidal pathways.—C. Nony (Sorbonne).

1196. Lapique, L., & Lapique, M. *Polarité de la moelle épinière en rapport avec la subordination périphérique.* (Polarity of the cord in relation to peripheral subordination.) *C. R. Soc. Biol., Paris*, 1939, 130, 138-141.—Two electrodes are fixed along the back line of an intact frog, and a difference of potential is progressively established. It is observed that the threshold for motor responses is markedly lower when the anode is placed at the coccyx and the cathode at the head than when the disposition is reversed. The encephalo-spinal axis thus seems endowed with polarity. The fact that if the medulla is crushed the polarity disappears, and a number of

other experiments, all lead to the conclusion that such polarity is a phenomenon of subordination and that both must be looked upon as two aspects of the same physiological process.—C. Nony (Sorbonne).

1197. Lapique, L., & Lapique, M. *Influence du courant constant sur l'excitabilité réflexe de la moelle.* (The influence of a constant current on the reflex excitability of the cord.) *C. R. Soc. Biol., Paris*, 1939, 130, 1054-1057.—The general effect of a constant current on the spinal frog is one of facilitation, but while with relatively high frequencies the threshold is only slightly lowered, it is much more so with lower frequencies. This effect is due to the passage of the current through the cord and not to a local action of the electrode. It is obtained only with an ascending current. A descending current has no effect in the spinal frog, but in intact animals it has an inhibiting effect.—C. Nony (Sorbonne).

1198. Lueken, B. *Über die reflektorischen Funktionen von wenigen, völlig abgetrennten Rückenmarksegmenten.* (The reflex functions of a few completely isolated spinal segments.) *Z. Biol.*, 1939, 99, 551-580.—The summation of two stimuli to the entire nerve of the same side in the frog reaches its maximum in the intact spinal cord in 20-50 milliseconds. The curve descends from a broad plateau and ends in 300-500 milliseconds. The curve of the increase of a stimulus to the entire nerve of the same side, produced by a previous stimulus of the entire nerve of the opposite side, rises abruptly through the entire cord and falls quickly without plateau formation to its end point within 60-80 milliseconds. In this case there are two subliminal stimuli of different lengths. The intensity and interval of the curve of the entire cord on stimulation of the whole nerve of one side are very smooth. They are somewhat sharpened by stimulation of the nerve of the opposite side, and extraordinarily so by stimulation of single branches of the same side or by raising the temperature of the cord. The picture of the secondary action currents and the after-effects of stimulation is much simplified in the three-segment preparation in comparison with the irregular discharge of the entire cord, and it is transformed into a series of similar action currents at regular intervals.—P. L. Krieger (Leipzig).

1199. Meader, R. G. *Notes on the functions of the forebrain in teleosts.* *Zoologica, N. Y.*, 1939, 24, 11-14.—(*Biol. Abstr.* XIII: 16698).

1200. Messimy, R., & Chevallier, R. J. *Les effets de l'ablation du cerveau antérieur chez le lapin.* (Effects of the removal of the forebrain in the rabbit.) *C. R. Soc. Biol., Paris*, 1939, 130, 1240-1242.—After removal of areas 6 and 8, and of the fore part of areas 4, 24, and 32 (according to Winkler and Potter's map) on 11 rabbits, exaggeration of the defence behavior and reflex responses was observed, accompanied by a cataleptic state and a severe loss of weight, seemingly due to serious disturbances of the autonomic nervous system.—C. Nony (Sorbonne).

1201. Nielson, J. M., & Raney, R. B. Recovery from aphasia studied in cases of lobectomy. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 189-200.—Three new cases in which aphasia was studied after major (left) temporal lobectomy, performed surgically in two instances and by nature (thrombotic softening) in one, and one case of minor (right) temporal lobectomy are reported. The similarity in the conditions of the patients in the first group in all cases so far studied places their remarkable capacity in language beyond coincidence and suggests that patients with complete loss of the major temporal lobe perform language functions better than those with mere damage to it. Evidence is also presented that the minor temporal lobe (right) may have considerable function in language even when the major lobe (left) is intact.—W. J. Brogden (Wisconsin).

1202. Piéron, H., & Segal, J. Le système nerveux siphonal de la mye et ses manifestations électriques. (The siphonal nervous system of *Mya arenaria* and its electrical manifestations.) *C. R. Soc. Biol., Paris*, 1939, 130, 634-637.—The histological study of the siphonal nerves reveals the presence of many ganglionic cells, in every way similar to the pyramidal cells of the cerebral cortex. It is therefore possible to look upon the siphonal nervous system as a diffused nervous center. Action potentials following luminous, chemical, and mechanical stimuli appear mostly as dischronic volleys, but sometimes they are synchronic enough to allow timing. At 20° C. the waves are rapid (2.5 ms); they were obtained chiefly through light stimuli; the long latency of the optical reactions would therefore be caused by the slow rate of the primary and ganglionic processes.—C. Nony (Sorbonne).

1203. Piéron, H., & Segal, J. Des variations de latence des réponses électriques oculaires et d'une dissociation nécessaire de l'onde négative initiale et de l'onde positive terminale de l'électrorétinogramme. (Latency variations in electrical responses of the eye and the necessary dissociation of the initial negative and positive terminal waves in the electroretinogram.) *C. R. Soc. Biol., Paris*, 1939, 131, 1048-1050.—The latency of A and B waves in the retinograms of the eye of the frog was systematically investigated in relation to intensity. At 18° C. and for brilliancies between the threshold and 667 units, the A-wave latency varies from 120 to 28 ms and the B-wave latency from 230 to 84 ms. Interpolation in the latter is made possible by the formula $t = \frac{500}{\sqrt{0.2}} + 80$. B-wave thermal coefficients vary a great deal with temperature, which leads to the hypothesis of a complex process, the elements of which would also be modified by temperature. Cold has made it possible to separate the A negative wave into two successive variations, the first one (though very weak and apparently without latency) being by far the most resisting. The terminal positive wave (D wave) shows also the same variation.—C. Nony (Sorbonne).

1204. Prosser, C. L., & Buehl, C. C. Oxidative control of 'spontaneous' activity in the nervous system of the crayfish. *J. cell. comp. Physiol.*, 1939, 14, 287-297.—An adequate oxygen supply is required by the isolated groups of abdominal ganglia. Cyanide and carbon monoxide exert their effects by altering the number of spontaneously discharging neurones. Whether or not a neurone discharges depends on intraganglionic oxidations catalyzed by well-known enzyme systems. The effects of dinitrophenol and sodium monoiodoacetate were also studied.—O. W. Richards (Spencer Lens Company).

1205. Rascanu, V., Kapri, M., & Popovici, G. L'action du chloroforme, de l'évipan et du véronal sur l'activité des centres moteurs corticaux. (The action of chloroform, evipan, and veronal on the activity of the motor centers of the cortex.) *C. R. Soc. Biol., Paris*, 1939, 130, 1602-1605.—C. Nony (Sorbonne).

1206. Richard, A. Action de l'asphyxie sur l'excitabilité nerveuse. (The effect of asphyxia on nervous excitability.) *Anesthésie et Analgésie*, 1938, 4, 477-481.—(*Biol. Abstr.* XIII: 16702).

1207. Roeder, K. D. Synchronized activity in the optic and protocerebral ganglia of the grasshopper *Melanoplus femur-rubrum*. *J. cell. comp. Physiol.*, 1939, 14, 299-307.—Using two recording channels, it was shown that two protocerebral rhythms of slightly differing frequency result from simultaneous illumination of the two eyes. Medial separation of the ganglia does not abolish the rhythm. Illumination of the incompletely dark-adapted eye gives an asynchronous discharge in the optic tract which initiates the synchronized activity of neurones in the homolateral protocerebral ganglion. This activity is normal and unaffected by activity in the other ganglion.—O. W. Richards (Spencer Lens Company).

1208. Sanford, H. S., & Bair, H. L. Visual disturbances associated with tumours of the temporal lobe. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 21-43.—Close examination of material derived from the study of 211 cases where a diagnosis of tumour had been verified and where visual disturbances were present was made. Homonymous hemianopia was found to be the most common visual field defect produced by tumours of the temporal and occipital lobes. Incongruous homonymous field defects were produced by tumours of the temporal lobe which affect either the lateral aspect of the homolateral optic tract or the beginning of the geniculo-calcarine fasciculus. In the former case the larger defect is in the field of the homolateral eye; in the latter case, in the field of the contralateral eye. No concrete evidence was obtained either for or against the presence of a crossing bundle of fibers to allow representation of each half of the retinal maculae in both occipital lobes.—W. J. Brogden (Wisconsin).

1209. Smyth, G. E. The systemization and central connections of the spinal tract and nucleus of the trigeminal nerve. *Brain*, 1939, 62, 41-87.—From the correlation of clinical observations and

post-mortem findings in cases of syringobulbia the following conclusions concerning the central connections of the spinal tract and the nucleus of the trigeminal nerve are reported: (1) the abolition of the corneal reflex in cases of syringobulbia suggests that the afferent arc of this reflex descends to the most caudal part of the spinal tract; (2) pain and thermal sensitivity of the face region are exclusively served by the spinal tract of the trigeminal nerve; (3) superficial and deep pain of the face region pursue an identical pathway in the spinal tract; (4) in the face, recognition of touch and discrimination of two points simultaneously applied are independent of the spinal tract; the nerve impulses underlying these functions are in all probability mediated exclusively by the main sensory nucleus.—*W. J. Brogden* (Wisconsin).

1210. **Strauss, H., Rahm, W. E., Jr., & Barrera, S. E.** Electroencephalographic studies in relatives of epileptics. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 207-212.—Encephalograms were made on 93 relatives of 30 idiopathic epileptics, using two electrodes placed symmetrically over both frontal lobes, both occipital lobes, or a frontal and an occipital lobe. "Normal," "abnormal," and "suspicious" electroencephalograms were differentiated by certain criteria. Of the 30 parents of epileptics 23% showed abnormal records. Of 63 siblings 28% gave abnormal records. At least one member of a family showed such records in 45% of the cases. Genetic and therapeutic results are discussed.—*H. Peak* (Randolph-Macon).

1211. **Williams, D.** The abnormal cortical potentials associated with high intracranial pressure. *Brain*, 1939, 62, 321-334.—The changes in cortical electric potentials in patients with abnormally high intracranial pressure were studied in relation to the clinical state and the height and duration of abnormal pressure. Experimental modification of cerebrospinal fluid pressure showed that the abnormal waves of electrical potential are due to secondary osmotic changes in the cerebral tissues. This change is probably an edema of the nerve fibers in the white matter of the cerebral hemispheres.—*W. J. Brogden* (Wisconsin).

[See also abstracts 1221, 1238, 1244, 1248, 1287, 1288, 1292, 1426.]

RECEPTIVE AND PERCEPTUAL PROCESSES

1212. **Berens, C., & Stein, L.** Group color vision tests. *J. Amer. med. Ass.*, 1939, 113, 1563-1564.—In a method for testing large groups of subjects for disturbance of color vision, Kodachrome film is employed to make colored copies of the Ishihara or Stilling tests. Projection of these slides yields good images, which can readily be perceived by a large group of subjects.—*W. J. Brogden* (Wisconsin).

1213. **Blankstein, S. S., & Fowler, M. J.** Visual-acuity tests. *Amer. J. Ophthal.*, 1939, 22, 1377-1383.—A comparative study of visual acuity as measured by Snellen charts and by Betts stereo-

scopic cards indicates that the former are more accurate, particularly for individuals having sub-normal vision, but neither test shows particular advantages when used simply to determine whether or not vision is normal. The Betts charts introduce a higher degree of suppression than the Snellen charts, in which one eye is covered while the other is tested.—*D. J. Shaad* (Institute of Ophthalmology, New York City).

1214. **Bogoslovski, A. I.** The dependence of the contrast sensitivity of the eye upon adaptation. *Ophthalmologica*, 1939, 97, 289.—Dark adaptation increases contrast sensitivity for low illumination of test fields, regardless of color. Increased brightness of a white field increases the differential threshold for red, blue, and white light in the daylight. These thresholds are decreased in the dark. Threshold for green remains unchanged until the illumination is greatly increased on a white test field, while other colors remain the same in brighter light.—*D. J. Shaad* (Institute of Ophthalmology, New York City).

1215. **Briggs, G., Choyce, D. P., Hill, J., & Kerridge, P. M. T.** The acuity of hearing of left- and right-handed children. *J. Physiol.*, 1939, 96, 48P-49P.—Abstract.

1216. **Bróns, J.** The blind spot of Mariotte, its ordinary imperceptibility or filling-in, and its facultative visibility. Copenhagen, London: Nyt nordisk Forlag, Arnold Busck; H. K. Lewis, 1939. Pp. 347.—The argument is divided into 10 chapters. The first constitutes a historical survey. Chapters 2-5 deal with various sensory and perceptual aspects of the optic papilla. Chapter 6 treats the anatomical and physiological particulars. Chapter 7 is introductory to the original contributions on the nature and explanation of various negative after-images found in Chapters 8 and 9. The final chapter, the controversial aspect of the limits of the blind spot, is based on the observation of Tscherning that a knitting needle appears curved when it is moved under proper conditions toward the blind spot.—*N. J. Van Steenberg* (Iowa).

1217. **Campbell, E. H.** Experiences with fistulization of the labyrinth in chronic progressive deafness. *Arch. Otolaryng.*, Chicago, 1939, 30, 689-710.—Permanent improvement of hearing in cases of chronic progressive deafness results from the making of a permanent fistula in the bony capsule of the external semicircular canal when the operation is performed upon those patients in whom bone conduction is good, the vestibular function is normal, and the tympanic membrane is in good condition.—*W. J. Brogden* (Wisconsin).

1218. **Chase, A. M., & Smith, E. L.** Regeneration of visual purple in solution. *J. gen. Physiol.*, 1939, 23, 21-39.—*M. E. Morse* (Baltimore).

1219. **Chweitzer, A.** Sur la question de localisation des phosphènes périphériques produits par la stimulation électrique chez l'homme. (The localization of the peripheral flashes of light produced by electric stimulation of the eye in man.) *C. R. Soc. Biol., Paris*, 1939, 130, 1204-1206.—The flashes of

light are most often located on the same side as the eye which is stimulated, without regard to the spot where the electrode is applied.—C. Nony (Sorbonne).

1220. Clausen, H. J., & Mofshin, B. The pineal eye of the lizard (*Anolis carolinensis*), a photoreceptor as revealed by oxygen consumption studies. *J. cell. comp. Physiol.*, 1939, 14, 29-41.—(*Biol. Abstr.* XIII: 14701).

1221. Coppée, G. Les voies auditives au niveau de la moelle allongée. Quel est le plus petit intervalle entre deux sons perceptible par un animal? (Chat et lapin.) (Auditory pathways in the bulb. What is the smallest sound interval that cats and rabbits can perceive?) *C. R. Soc. Biol., Paris*, 1939, 130, 1366-1369.—The differential auditory threshold in cats and rabbits was explored by means of the electrophysiological method and the "screamed sound" technique: one ear is stimulated by a loud shrill sound (e.g. 2400 cycles) and the electrical activity of the third neurone of the auditory pathway is recorded by means of an electrode needle fixed in the postero-inferior end of one of the quadrigemina. No electrical response can be obtained at such high frequencies, except an on- and an off-effect; but if we increase the frequency, e.g. up to 2600, strong action potentials appear during the variation, and disappear as soon as the latter stops. By gradually reducing the variation it is possible to determine the smallest variation of frequency that conditions the action potentials (from 2400 to 2450 in cats, or 2%; from 2400 to 2500 in rabbits, or 4%; from 2400 to 2420 when this technique is applied to man, or less than 1%). Interpretation of this phenomenon is attempted by the hypothesis of an analyzing system in the cochlea and of specialized nervous pathways linking each resonator in the cochlea to sensory or reflex centers.—C. Nony (Sorbonne).

1222. Cordes, F. C., & Harrington, D. O. Asthenopia from vitamin-A deficiency. *Amer. J. Ophthal.*, 1939, 22, 1343-1355.—82 cases of persistent asthenopia attributed to vitamin-A deficiency, indicated by deficient dark adaptation as measured by the biophotometer, were treated with carotene in oil. 79% obtained complete relief and 12% partial relief from symptoms which included photophobia, rapid fatigue of the eyes especially at night, difficulty in prolonged reading, chronic conjunctivitis, and headache or blurring at movies or during night driving.—D. J. Shaad (Institute of Ophthalmology, New York City).

1223. Dickson, E. D. D., Ewing, A. W. G., & Littler, T. S. The effects of aeroplane noise on the auditory acuity of aviators: some preliminary remarks. *J. Laryng.*, 1939, 54, 531-548.—Audiometric tests on pilots of the Royal Air Force show a loss in acoustic sensitivity for high tones if the ears are unprotected. This loss becomes apparent at an early stage, even after the first few hundred hours in the air. It varies with individuals and is temporary at first, but becomes permanent after a time. Bone conduction is diminished for frequencies which show a loss by air conduction. Wave analysis of

aircraft noise indicates that all the components of large amplitude are low in frequency.—W. J. Brogden (Wisconsin).

1224. Eschweiler, H. Alte und neue klanganalytische Forschungswege und Ergebnisse mit besonderer Berücksichtigung der Sprachlaute. (Old and new methods and results of analyzing sounds, especially speech sounds.) *Z. Hals-, Nas.-, u. Ohrenheilk.*, 1939, 45, 127-140.—Early apparatus failed to register every individual partial tone in its relative strength, but since the development of electrical recording devices this analysis has been perfected. The ear is subject to many auditory illusions. The fundamentals of the G-string on the violin and of a bell are clearly audible, though hardly present in the objective sound. The ear perceives these as differentials between two overtones which are actually present with considerable intensity. Newer techniques, such as filters, enable us to investigate in detail the gradual temporal construction of sounds.—P. L. Krieger (Leipzig).

1225. Geblewicz, E. La sommation spatiale des excitations thermiques pour les stimuli en durée indéfinie et en durée brève. (Spatial summation for thermal stimuli of short and unlimited duration.) *C. R. Soc. Biol., Paris*, 1939, 130, 638-640.—The author made use of a source of radiant heat (an electric radiator heated by a direct current, the intensity of which was kept constant by a rheostat and an ammeter. A system of 3 screens with variable openings allowed stimulations of different intensities, surfaces, and durations. For surfaces of the forehead between 5 and 15.7 cm.² and stimuli of practically unlimited duration (20 seconds) there is an inverse ratio between threshold and surface ($I = \frac{a}{S}$, where I = liminal intensity, S = surface stimulated, a = a constant). For a stimulation of 60 ms. the formula is $I = aS + b$, which means a smaller integration.—C. Nony (Sorbonne).

1226. Georgariou, P. [Occupational dyschromatopsia and the Ishihara color tests.] *Bull. Soc. hellén. Ophthal.*, 1939, 8, 59.—The majority of those who show defective color vision on the Ishihara tests appear to have normal color vision when they are tested with colored wool or glass.—D. J. Shaad (Institute of Ophthalmology, New York City).

1227. Good, G. H. Relationship of fusion weakness to reading disability. *J. exp. Educ.*, 1939, 8, 115-121.—Evidence is presented which shows that adduction and abduction weaknesses of the extrinsic muscles of the eye accompany difficulty in learning to read. Retests following corrective ocular treatment for increasing "duction" strength show marked improvement in reading.—H. W. Karn (Pittsburgh).

1228. Gramont, A. de. Problèmes de la vision. (Problems of vision.) Paris: Flammarion, 1939. Pp. 282. 22 frs.—Part I deals with the eye as an optical instrument, its anatomy, the nature of entoptic phenomena, its defects and their correction by means of glasses, and its chromatic aberration

from the painter's and the physicist's standpoints. Part II, besides containing chapters about the visibility of points and lines, the spotting out of directions, the measurement of brightnesses, the mechanism of after-images, and the importance of lines in drawing and painting, is concerned with optical illusions and the mechanism of light stimuli—with regard to which the analogy between the photoelectric cell and the eye and MM. Piéron's and Fessard's theories are examined. There is also a chapter on the perception of volumes and relief, in which the author discusses practical problems of architecture and makes use of records of sight recovery by congenitally blind persons. Part III deals with color: comparison of luminous sources of different colors, differential thresholds for hues, contrast phenomena, daltonism, Young's and Hering's theories of colored perception and transmission, and finally the author's own theory, according to which there would be piezo-electric elements in both cones and rods.—*C. Nony* (Sarbonne).

1229. **Granit, R.** Synpurpur, ljuskänslighet, vitamin A. Den intermediära processen i mörkerseendet. (Visual purple, sensitivity to light, and vitamin A. The intermediate process in dark adaptation.) *Finska LäkSällsk. Handl.*, 1939, 82, 2700-2709.—Report of a lecture reviewing work by the author and his collaborators in which parallel measurements of the concentration of visual purple and the retinal sensitivity to light have been made during dark adaptation of previously light-adapted frogs. One eye of the animal was used for measurements of the amount of visual purple (extraction with 2% digitonin), the other eye for determining the sensitivity with the aid of the electrical response to illumination. The visual purple was measured photoelectrically, the electro-retinogram by means of an amplifier and a cathode-ray tube. Elicitation of maximal electrical responses did not lead to any diminution in the concentration of visual purple. On the other hand, during regeneration of visual purple the increase of sensitivity did not set in until the concentration of visual purple had risen to about 50% of its final maximum. Therefore sensitivity to light is not directly proportional to the concentration of visual purple, as is maintained by the current classical theory of dark adaptation. The increase in sensitivity is due to a secondary or intermediate process, which requires some 50% of visual purple to be noticed. The significance of these results from the point of view of the relationship between light sensitivity and vitamin A is discussed. Tables, graphs, bibliography.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1230. **Guillain, G., & Messimy, R.** Les troubles olfactifs dans la maladie osseuse de Paget. (Olfactory disturbances in Paget's bone disease.) *C. R. Soc. Biol., Paris*, 1939, 131, 499-501.—The measurement of olfactory thresholds and fatigue by Elsberg's method shows the frequency and seriousness of olfactory disturbances in Paget's disease.—*C. Nony* (Sorbonne).

1231. **Güttich, A.** Zur Schallrichtungsbestimmung bei doppelseitigem Vestibularisausfall. (Sound localization in bilateral exclusion of the vestibules.) *Arch. Ohr., Nas., u. Kehlkheilk.*, 1939, 146, 298-301.—A new experimental technique for determining sound localization is described. Exact localization requires the unobstructed co-operative functioning of cochlea and vestibule.—*P. L. Krieger* (Leipzig).

1232. **Ilse, D.** Experiments on the colour sense of insects. (Film.) Bethlehem, Pa.: Psychological Cinema Register, Lehigh University, 1939. 200 ft., silent, colored, \$30 sale.—Bees are attracted by a honey solution in a watchglass on a blue square of paper. After a few visits the bees continue to congregate on the blue paper when the solution is removed. Control experiments demonstrate that the bees are able to select the blue paper when it is placed first among gray squares of varying brightness, and second among different colored squares. The conclusion is drawn that "bees fed on blue distinguish it from gray and from red, yellow or green, but confuse it with violet and purple."—*L. F. Beck* (Oregon).

1233. **Kendall, D.** Some observations on central pain. *Brain*, 1939, 62, 253-273.—*W. J. Brogden* (Wisconsin).

1234. **Kerridge, P. M. T., Briggs, G., Choyce, D. P., & Hill, J.** Defective hearing and nutrition in children. *Lancet*, 1939, 237, 781-785.—*W. J. Brogden* (Wisconsin).

1235. **Knapp, A. A.** Vitamin-D complex in progressive myopia. *Amer. J. Ophthalm.*, 1939, 22, 1329-1337.—In 53 cases of myopia in which vitamin-D medication (viosterol and calcium) was prescribed, 50% showed a reduced myopia or remained stationary. In some cases there is evidence of scleral shrinkage under this treatment. Detailed data on refractive errors for each case are included.—*D. J. Shaad* (Institute of Ophthalmology, New York City).

1236. **Kopetzky, S. J.** Studies in labyrinthine fenestration to improve hearing (a preliminary report). *Laryngoscope, St. Louis*, 1939, 49, 1064-1089.—*W. J. Brogden* (Wisconsin).

1237. **Larsen, B.** Investigations of professional deafness in shipyard and machine factory labourers. *Acta oto-laryng., Stockh.*, 1939, Suppl. 36. Pp. 255.—The hearing of 250 laborers who had been exposed to intense noise was studied by a number of clinical methods, including, in 54 cases, an audiometer test. The results indicate that professional deafness begins with a reduction of hearing for whisper, due to a marked tonal dip at 4096~, and progresses to classical high-tone nerve deafness. The dip is not associated with tinnitus. In some cases the dip is less severe after periods of rest and in 3 cases it appeared in non-professional individuals after brief exposure to the noise. Possible causes of this form of deafness and means for its prevention are discussed in the light of the pertinent literature.—*C. W. Bray* (Princeton).

1238. Leinfelder, P. J. Unilateral loss of vision in neurological disease. *Amer. J. Ophthalm.*, 1939, 22, 1337-1343.—Diminished vision in one eye may be a clinical symptom of adenoma of the pituitary gland, meningioma of the sphenoidal ridge, multiple sclerosis, intracranial aneurysm, suprasellar cyst, internal hydrocephalus, frontal lobe tumors, hysteria, or other less frequent disturbances of the central nervous system. Diagnosis is difficult and depends on repeated clinical observations.—D. J. Shaad (Institute of Ophthalmology, New York City).

1239. Mattsson, R. Tre fall av transitorisk myopi. (Three cases of transitory myopia.) *Finska LäkSällsk. Handl.*, 1939, 82, 1751-1754.—Three cases of myopia of short duration are described, showing no other visual symptoms; they are diagnosed by the writer as allergic reactions. Bibliography.—M. L. Reymert (Mooseheart Laboratory for Child Research).

1240. Mellanby, E. The experimental production of deafness in young animals by diet. *Laryngoscope*, St. Louis, 1939, 49, 1090-1118.—The histological examination of cochleas of young dogs fed for some months on diets deficient in vitamin A and rich in cereals reveals degeneration of different degrees up to complete disappearance of the cochlear nerve, the cells of the spiral ganglion, and their central and peripheral branches.—W. J. Brogden (Wisconsin).

1241. Newman, H. W., Doupe, J., & Wilkins, R. W. Some observations on the nature of vibratory sensibility. *Brain*, 1939, 62, 31-40.—Vibrotactile thresholds, determined by means of a vibrotactile stimulator driven at 200 cycles by a beat-frequency oscillator, were obtained upon young adults from both the deep and the superficial structures of a given cutaneous area. In order to obtain a vibrotactile threshold from either the deep or the superficial structure, the other was rendered anesthetic by appropriate application of a 2% solution of novocain with adrenalin. From the results it is suggested that the receptors of vibratory sensitivity in the skin are the same as those concerned with the sensation of touch, while those in the deeper tissues are closely related to, if not identical with, the receptors mediating the sense of passive movement.—W. J. Brogden (Wisconsin).

1242. Novitskij, A. A. Recherches sur l'adaptation visuelle périphérique au cours de 24 heures. (Studies on peripheral visual adaptation during the course of 24 hours.) *C. R. Acad. Sci. U. R. S. S.*, 1938, 19, 61-64.—(*Biol. Abstr.* XIII: 16680).

1243. Nylund, C. Principerna för bestämmandet av nattblindhet som symptom på A-vitaminbrist. (Principles for the determination of night-blindness as a symptom of lack of vitamin A.) *Finska LäkSällsk. Handl.*, 1939, 82, 1754-1757.—The writer maintains that the usual methods of determining night-blindness might not be sufficient or correct. A new apparatus for ascertaining the dark-adaptation curve is pictured and described. Two curves from this apparatus illustrate respectively the difference between an individual with normal dark vision and an individual with actual night-blindness.

Bibliography.—M. L. Reymert (Mooseheart Laboratory for Child Research).

1244. Pfaffmann, C. Specific gustatory impulses. *J. Physiol.*, 1939, 96, 41P-42P.—Abstract.

1245. Piéron, H., & Segal, J. Les manifestations électriques de l'excitation lumineuse chez la mye. (Electrical manifestations following light stimuli in *Mya arenaria*.) *C. R. Soc. Biol., Paris*, 1939, 130, 47-51.—An electrode fixed in the upper part of the clam's siphon allows the recording of potential variations following stimulation by different brightnesses of light. For light stimuli the latency varies with the intensity from 0.72 to 16.0 sec. and precedes the mechanical response of the siphon by about 0.73 sec. For darkness the latency varies from 0.95 to 2.95 sec. and precedes the mechanical response by only 0.37 sec. The electrical response is most often a slow biphasic wave, whose polarity depends upon the position of the electrode. In addition wide and rapid waves, probably of nervous origin, are to be observed with the motor response. The phenomenon is similar to the retinogram of vertebrates. The potential variations and the long initial latency would indicate a secondary chemical process, probably caused by a photochemical reaction taking place during the phase of latency.—C. Nony (Sorbonne).

1246. Rosenthal, M. "Functional" loss of hearing following injuries to the head. *Arch. Otolaryng., Chicago*, 1939, 30, 775-794.—19 cases, diagnosed by a neurologist as concussions, are presented together with their audiometric charts. Loss of hearing occurred at the higher frequencies (above 2048 cycles) in 9 cases, in 3 of which the loss was bilateral. Loss of hearing within the "functional" range (128 to 2048 cycles) was noted in 2 cases, in both of which it was bilateral. With head injuries, trauma most often occurs in the basal coil of the cochlea with impairment of perception for the higher frequencies (above 2048 cycles), which does not by itself produce "functional" loss of hearing.—W. J. Brogden (Wisconsin).

1247. Segal, J. Variations locales de potentiel consécutives à de forts stimuli lumineux. (Local variations of potential following strong light stimuli.) *C. R. Soc. Biol., Paris*, 1939, 130, 438-440.—In various photosensitive tissues (pallial edge of the oyster, siphon of *Mya*, iris of *Torpedo marmorata*) a light stimulation initiates a faint electric potential, the latency and amplitude of which vary with the intensity of the lighting; e.g. for the iris of *Torpedo* the amplitude varies from 5 to 50 microvolts for a variation of light intensity of 1 to 16, and the latency varies from 3 to 15 ms. for a variation of 1 to 4 in brilliancy. The potential is made up of (1) a constant photo-electrical effect, (2) a physiological response which is characterized by its quick decay, its disappearance after the death of the tissue, and above all by its fixed polarity, and which depends upon the position of the electrodes. The author conceives the phenomenon as an electrical manifestation of the primary process of photoreception.—C. Nony (Sorbonne).

1248. Spillane, J. D. Clinical investigation of olfactory function in brain tumour patients, *Brain*, 1939, 62, 213-221.—W. J. Brogden (Wisconsin).

1249. Stewart, C. P. Experiments with the dark adaptation test. *J. Physiol.*, 1939, 96, 28P-29P.—Abstract.

1250. Stockert, F. G. v. *Metamorphotaxie—ein Beitrag zur Symptomatologie des Riechhirns.* (Metamorphotaxia—a contribution to the symptomatology of the olfactory brain lobe.) *Allg. Z. Psychiat.*, 1939, 110, 48.—The author designates as metamorphotaxia the symptom of tactual modification of the Gestalt perceptions of objects, and submits clinical examples.—P. L. Krieger (Leipzig).

1251. Strauss, A., & Werner, H. *Deficiency in the finger schema: finger agnosia and acalculia.* (Film.) Bethlehem, Pa.: Psychological Cinema Register, Lehigh University, 1939. 320 ft., silent, \$16 sale.—The agnostic subject, with closed eyes, attempts first to localize a finger touched by the examiner. Then he is required to localize two or more fingers in the same order or schema as indicated by the examiner. Errors and confusions are numerous. Variations are introduced in which the subject points to a sketch of a hand or touches the examiner's fingers. Deficiencies in counting on the fingers also are shown. All subjects, including a control, are feeble-minded boys. The film is fully titled.—L. F. Beck (Oregon).

1252. Therman, P. O. Rod and cone electroretinograms in relation to pigment migration in normal and adrenalinized frogs. *J. cell. comp. Physiol.*, 1939, 14, 253-259.—The b-wave elicited by standard red and blue stimuli was measured for 71 eyes. The response to red was favored by light adaptation and that to blue light by dark adaptation. Adrenalin, like light, expands the pigment and causes cone contraction. The changes, confirmed histologically, took place without equivalent change in the electrical response or in the red/blue ratio. The protective role of the pigment epithelium was judged negligible.—O. W. Richards (Spencer Lens Company).

1253. Walton, W. E., & Bornemeier, R. W. *Color discrimination in rats.* *J. comp. Psychol.*, 1939, 28, 417-436.—Using a modified Lashley jumping apparatus and Wratten filters varied in brightness by changing the distance of lights behind them, the authors found that albino, gray, and gray-hooded rats discriminate between red and blue, red and green, red and yellow, and blue and yellow lights. There was failure to discriminate between blue and green and green and yellow. The color combinations were previously equated in brightness for the rat's eye. The relative brightness values of the colors from greatest to least were as follows: blue, green, yellow and red. Bibliography.—N. L. Munn (Vanderbilt).

[See also abstracts 1176, 1178, 1189, 1191, 1208, 1271, 1279, 1284, 1315, 1316, 1464, 1465, 1484, 1547, 1564, 1574, 1588.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

1254. Alverdes, F. *Die Marburger Untersuchungen über das Lernvermögen niederer Tiere.* (The Marburg studies on the learning capacities of lower animals.) *Zool. Anz. Suppl. Bd. (Verh. dtsch. zool. Ges.)*, 1938, 11, 37-47.—(*Biol. Abstr.* XIII: 14690).

1255. Cucchi, A. *Azione della mescalina sul profilo psicologico.* (The action of mescaline on the psychological profile.) *Riv. sper. Freniat.*, 1939, 63, 393-404.—The author gave 6 subjects 30 cg. of sulphate of mescaline. In 4 subjects he set up euphoria, increase in immediate memory and integrative capacity, and decrease in attention; in one case he obtained depression and a psychological retardation; and in the sixth case he found depersonalization. From a juridical and scientific point of view, he does not approve of the use of this drug by officers of the law in an attempt to hasten confessions in accused persons.—R. Ricci (Rome).

1256. Cupecea, S. *Constituție morfologica si inteligenta.* (Morphological constitution and intelligence.) *Rev. Psihol.*, 1939, 2, 168-176.—The constitution and the intelligence of 202 men of 19-22 years were measured; the constitution with the method of Wertheimer-Hesketh and the intelligence with the test of the Institute of Psychology, University of Cluj. The correlation between constitution and intelligence was $.04 \pm .047$. When, however, the morphological type is compared not with the degree but with the type of intelligence, the correlation rises to .85, .60, .70, .50, and .60.—N. Marginean (Cluj, Rumania).

1257. Eysenck, H. J. *The validity of judgments as a function of the number of judges.* *J. exp. Psychol.*, 1939, 25, 650-654.—Evidence is presented which shows that in esthetic discrimination the validity of judgments increases as the number of judges becomes larger.—H. W. Karn (Pittsburgh).

1258. Fischel, W. *Gedächtnis und Denken bei Tieren und Menschen.* (Memory and thinking in animals and man.) *Naturwissenschaften*, 1939, 27, 249-258.—Fischel discusses the varieties of animal behavior. The aims of existence in animals and man are basically different. Not learning, but orientation of psychic content toward the future is the youngest phylogenetic capacity of the human psyche. Thought, in contrast to day dreaming, is a means of reaching ends, and rests on memory. Fatigue leads to behavior based on the past. Distraction consists in a wavering from ends and action. Manic-depressive insanity disturbs the euphoria of psychic content. Schizophrenia disrupts the relations between affect, experience and action. Conscious regard for the preconditioned proposition, capacity, is more important for man than learning.—P. L. Krieger (Leipzig).

1259. Freeman, F. N. *The nature of and factors in ability in the light of recent evidence.* *Bull.*

Sch. Educ. Ind. Univ., 1938, 14, No. 4, 19-21.—"The abilities of individuals have a basis in organic structure but are not solely determined by such structure. The structure itself may be modified somewhat by environment, and the functioning of structures or organs may be modified still more. Abilities may be modified by education within limits."—C. M. Louttit (Indiana).

1260. Halbwachs, M. *La explicación sociológica de la inteligencia.* (The sociological explanation of intelligence.) *Rev. mex. Sociol.*, 1939, 1, 44-62.—The relationship between intelligence or mind and the external world has been explained by two classes of formulated theories: first, those that are innate in conception, and, second, those which are empirical. The sociological theory of knowledge, based upon a knowledge of the psychology of primitive races, supports the empirical point of view. However, sociology parts company with the empirical theory with respect to the origin of reality and experience. Collective or group thinking is the product of social cooperation in time and in space; it is the cumulative wisdom of the group. Intelligence is born of society and social forces.—J. W. Nagge (Emporia State College).

1261. Hill, C. H. *Goal gradient, anticipation, and perseveration in compound trial-and-error learning.* *J. exp. Psychol.*, 1939, 25, 566-585.—In a maze with 4 four-valve choice points an equal distance apart, 72 rats were given 10 rewarded training trials with all valves open. 3 rats were then run in each possible permutation of open valves 5 trials a day for 10 days. After these 10 days 24 rats (1 in each possible permutation) ran 10 unrewarded trials. (1) A single gradient of errors is displayed early in learning, the errors decreasing at each point as the goal is approached; by the second set of 10 trials a bidirectional gradient makes its appearance, with fewer errors on the first and last choice than on the middle two choices. The bidirectional gradient appears to be caused by failure of anticipatory errors to be rapidly eliminated. (2) That removal of reward exerts a disruptive effect on the maze habit is shown by increased errors and decreased successes. The effect seems to be greater at each choice point closer to the goal. Under these conditions anticipatory errors decrease in frequency relative to perseverative errors. (3) There is evidence of a speed-of-locomotion gradient.—H. W. Karn (Pittsburgh).

1262. Hovland, C. I. *Experimental studies in rote-learning theory. V. Comparison of distribution of practice in serial and paired-associate learning.* *J. exp. Psychol.*, 1939, 25, 622-633.—32 subjects learned both serial and paired-associate lists on successive days by massed and distributed practice. The anticipation method was used for both types of learning. Learning by distributed practice resulted in a reduction in the number of trials required for mastery in the case of serial materials. No superiority of distributed over massed practice was found in the case of paired associates. The learning curve obtained with massed practice of serial items shows that progressively more trials are required to reach

successive criteria of performance, but with distributed practice the curve is more nearly linear. The curves for paired associates were nearly identical for massed and distributed practice, and both approached linearity to a greater degree than the curve for massed serial learning. The most likely explanation of the differences in the effectiveness of distributed practice with the two materials is the differences in the nature of the interferences involved. Long associational bonds which are prominent in serial learning have little opportunity to become formed in the paired-associate technique. If these give rise to conflicting associations and weaken more rapidly during a short interval than do the correct associations, which are stronger, distribution of practice would naturally be more effective than massed practice.—H. W. Karn (Pittsburgh).

1263. Hunsley, Y. L. *Intelligence, as work habits, attitudes and behavior, does change.* *Sch. & Soc.*, 1939, 50, 682-684.—3 cases are cited of children with IQ's of 56 to 69 who when given confidence and suitable environmental conditions showed increases in IQ of 12 to 36 points. These are said to be typical of 50 cases referred to and treated by the department of psychology of the Sioux City public school system.—M. Lee (Chicago).

1264. Kitamura, S. *Untersuchung über die Typen des Vorstellungslebens in Bezug auf das Icherlebnis. I.* (A study on the types of representational experience in relation to the ego experience. I.) *Tohoku psychol. Folia*, 1939, 7, 189-208.—14 subjects with closed eyes were required to report an image as a reaction to stimulus words and short verses. The cardinal types of visualization are two: the subjective, where the subjects change to actors in imagination, and the objective, where they visualize only the objects concerned. Subjective visualization occurs most frequently when the subjects are required, in imagination, to walk between two given places, and next most frequently when they are asked to recall themselves in a given situation. It is very difficult to react with subjective visualization when the stimulus is subjective lyrical poetry.—T. Chiba (Sendai).

1265. Konczewski, C. *La pensée préconsciente.* (Preconscious thinking.) Paris: Alcan, 1939. Pp. xxi + 273. 40 frs.—This book, of Bergsonian inspiration, is a survey, conducted by means of introspection, of such questions as wordless and imageless thought, the influence of affectivity upon thought and the building up of personality, the importance of rhythm, and the relativity of the notions of past and present.—C. Nony (Sorbonne).

1266. Kuribayasi, U. *Einige Versuche auf dem Gebiet der Intelligenzprüfung.* (Some studies in the field of intelligence testing.) *Tohoku psychol. Fol.*, 1939, 7, 33-50.—Contents: (1) introduction, (2) intelligence of children and parental ages at the time of their birth, (3) intelligence of children and disparity between parental ages, (4) intelligence of children and birth order, (5) summary.—U. Kuribayasi (Sendai).

1267. Lhermitte, J. *L'image de notre corps*. (The body image.) Paris: Nouvelle Revue Critique, 1939. Pp. 254.—After a brief historical account the author studies the development of the body image, which begins during the first 6 months of life, the part played by the various sensations (visual, tactile, muscular, labyrinthine, visceral, etc.) in its building up, and the modifications it undergoes with toxic or pathological alterations of those sensibilities: illusions following the amputation of a limb or in non-crippled persons by lesions of the nervous system; reverse illusion of physical integrity in patients affected by blindness or paralysis (Babinski's "anosognosia"); complete disappearance of the body image (total asomatognosia); influence of alterations of the body image upon the motor functions (apraxia, agnosia); experimental production of such alterations through toxic substances (opium, ether, alcohol, but more chiefly hashish or mescal); autoscopic phenomena, frequently experienced by famous writers such as Goethe, de Musset, Poe, de Maupassant, d'Annunzio; relation between the body image and esthetics.—C. Nony (Sorbonne).

1268. Marold, E. *Versuche an Wellensittichen zur Frage des "Zähl"-vermögens*. (Experiments on the "counting" ability of the parakeet.) *Z. Tierpsychol.*, 1939, 3, 170-223.—The author conducted experiments similar to those previously reported on the "counting" ability of the pigeon. Eliminating figural and positional cues, it was found that the parakeet could distinguish at least between 2 and 3 (corn kernels), although no attempt was made to determine the limit of discrimination. The bird could also learn to pick any given number of kernels up to 6 from a larger number, and could even learn to pick two or three numbers of kernels in sequence (e.g. 2 then 3), each at a given signal. It is not a question of "counting" in the human sense, but of the ability to discriminate between small numbers in visual apprehension or in active performance.—G. M. Gilbert (Connecticut College).

1269. Minkowsky, W. L. *The effect of benzedrine sulphate upon learning*. *J. comp. Psychol.*, 1939, 28, 349-360.—White rats injected daily with 0.5 mgm. of benzedrine sulphate failed to learn a Stone maze which was readily mastered by a control group. The experimental animals were extremely sluggish. That the drug retards appetite is questioned. Bibliography.—N. L. Munn (Vanderbilt).

1270. Mowrer, O. H. *An experimentally produced "social problem" in rats*. (Film.) Bethlehem, Pa.: Psychological Cinema Register, Lehigh University, 1939. 250 ft., silent, \$12.50 sale.—Each of three litter-mate male rats learns to "make a living" by pressing a bar which releases a pellet of food. The bar is now moved to the far end of the apparatus so that more "work" must be done for the same "pay." By placing three rats in the apparatus together, a "social problem" arises: the animal that "works" has the least chance of securing what he has "produced." Total "production" rapidly declines, and during the "depression" the animals compete at

the food box for food that is not there. Finally, the animals, ravenously hungry, "attack" the bar. One animal learns that by rapidly activating the bar and dashing to the food box, a pellet or two sometimes can be obtained. His litter mates eventually become satiated and the problem is solved. One rat continues as the worker and the others become completely parasitic; a class society emerges.—L. F. Beck (Oregon).

1271. Ohwaki, Y. *Experimentelle Untersuchungen über die Erscheinungsweise der Vorstellung*. (Experimental studies on the modalities of representation.) *Tohoku psychol. Fol.*, 1939, 7, 51-118.—What sort of representation will be produced, and in what modality will it be, when we are met with various stimuli and are in a natural, unhurried attitude? The stimuli used were letters, paintings, colors, verbal and non-verbal sounds, and touch surfaces. There were 7 subjects. According to the results, verbal stimuli cause, either visually or acoustically, similar modalities of representation. Non-verbal sounds and touch surfaces both cause, on the contrary, clear visual but no verbal images. Not the heterogeneity of the kinds of sensation, but the difference between verbal and non-verbal stimuli is the determining factor of the modalities of representation, that is, of our mental attitudes toward stimuli.—T. Chiba (Sendai).

1272. Peak, H. *Time order error in successive judgments and in reflexes. I. Inhibition of the judgment and the reflex*. *J. exp. Psychol.*, 1939, 25, 535-565.—This study deals with lid reflexes to paired tone stimuli and absolute judgments of these same tones. The four intensity values taken by the first stimulus (S_1) of the pair fell into geometrically increasing steps. The second stimulus (S_2) was of constant intensity. Two time intervals between stimuli were employed, 177 and 285 ms. With S_1 and S_2 equal, there is evidence of a positive time error in 3 out of 5 subjects at the 177 ms. interval, and 4 out of 5 at the 285 ms. interval. The error is greater at 177 ms. Although judgments of S_2 following all intensities of S_1 showed decrement, the amount varied. The judged intensities of the second stimulus of the pair (J_2) decreased as the intensity of the first stimulus increased. When the intensity of the first stimulus was greatest and equal to the second, the function tended to reverse, showing a decrease in decrement of J_2 although inhibition was still present. The amplitude of the lid reflex (R_2) showed a relationship to the first stimulus similar to that for J_2 except that the function was continuous with no reversal at the largest intensity. In both reactions the development of inhibition following weak intensities of S_1 tended to be delayed so that it continued to increase beyond 177 ms. and was greater at the longer time interval. At the largest intensities this never occurred, and the amount of inhibition was always smaller at the longer intervals. An attempt is made to organize the J_2 and R_2 data under generalizations which are supported by experimental observations of spinal reflexes.—H. W. Karn (Pittsburgh).

1273. Rosca, A. *Inteligenta in mediul rural-urban.* (Intelligence in rural and urban communities.) *Rev. Psihol.*, 1939, 2, 131-141.—The intelligence tests of the Institute of Psychology, University of Cluj, Rumania, were applied to 2032 children from rural and urban communities. The average IQ is 107 in urban communities and 86 in rural communities. The difference seems to be explainable by both environment and selection. The social environment seems to be the more important.—N. Marginean (Cluj, Rumania).

1274. Sgonina, K. *Vergleichende Untersuchungen über die Sensibilisierung und den bedingten Reflex.* (Comparative studies on sensitization and the conditioned reflex.) *Z. Tierpsychol.*, 1939, 3, 224-247.—Experiments on several species of animals were performed to demonstrate that conditioned and unconditioned stimuli need not be presented simultaneously, but that the conditioned response may result from a cumulative "sensitization" brought about by repetition of the primary stimulus. *Paramecia*, planaria, minnows, axolotls, frogs, and guinea pigs were used. In most cases the unconditioned stimulus was faradic stimulation and the conditioned stimulus was light. The latter followed the former at intervals of from 10 seconds to 1 minute. In the case of the minnow, the swimming movements conditioned to light were retained as long as 2 to 4 days. The deposit and gradual accumulation of a conductor substance at the synapse is postulated as the mechanism whereby stimuli may be summated over considerable time intervals to produce the conditioned response.—G. M. Gilbert (Connecticut College).

1275. Susukita, T. *Beiträge zur Lehre vom Gedächtnis.* (Contributions to the theory of memory.) *Tohoku psychol. Fol.*, 1939, 7, 119-146.—The author studied chiefly the relation between the form of the "complex" and the reproduction. He draws a distinction between the "plane" complex and the "cubic" complex. The latter is generally superior to the former in the reproduction. But the sub-forms produced in the detailed classification of the cubic complex by characters differed from each other in the reproduction. Any sub-form fell far behind the plane complex. The author's observation on the structure of each sub-form led to the conclusion that the most important factor here is the degree of completion of the complex as a whole.—T. Chiba (Sendai).

1276. Tani, S. *Renzo kasan ho no ichi kōsatsu.* (On the continuous addition method.) *Psychiat. Neurol. japon.*, 1939, 43, 437-438.—Kraepelin's method of continuous addition can be applied not only as a test of mental work but also as an intelligence test. More time is necessary and more errors are made by idiots and morons when tested with this method. Development of intelligence is possible in morons, who are able to attain comparatively good results.—R. Kuroda (Keijo).

1277. Ventura, V. E. *Riflessi condizionati e psiconeurosi.* (Conditioned reflexes and psycho-

neuroses.) *Rass. Studi psichiat.*, 1938, 27, 691-705.—The author, after giving a résumé of the laws governing conditioned reflexes, shows that the mechanism which produces psychoneurotic manifestations in soldiers is related to a faulty reciprocal induction.—R. Ricci (Rome).

1278. Werner, H., & Strauss, A. *Types of visuo-motor activity in their relation to low and high performance ages.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 163-168.—Experimental analysis was made of certain factors which might account for high and low performance on the Arthur tests at any given Binet mental age level. "Three types of visuo-motor procedure were described. Two account in characteristically different ways for failures in performance tests. These two types of procedure, the global and the incoherent, correspond closely with two clinical types of mental deficiency, the exogenous and the endogenous. This difference in visuo-motor procedure may also be considered an aspect of the difference between retardation and defect. Global procedures are retarded forms of activity and can be interpreted in terms of genetic psychology. Incoherent visuo-motor activity points to a defective organism and can be interpreted only in terms of pathology."—M. W. Kuenzel (Children's Home, Cincinnati).

1279. Winnewisser, A. *Ein Beitrag zur Frage der Geburtsschädigung Taubstummer.* (A contribution to the question of birth injuries of deaf-mutes.) *Arch. Ohr., Nas., u. KehlkHeilk.*, 1939, 146, 261-294.—The highest average level of intelligence among deaf-mutes is attained by those whose condition is due to hereditary causes. Borderline cases show some reduction in average intelligence, which occurs especially among those who become deaf early in life. First-born children are particularly subject to this retardation, which affects second and third children less and later siblings not at all. Deafness in connection with mental retardation is directly or indirectly related to birth injuries.—P. L. Krieger (Leipzig).

[See also abstracts 1253, 1315, 1365, 1390, 1437, 1465, 1516, 1616, 1637.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

1280. Bergeret, P., & Giordan, P. *Effets de la décompression instantanée sur l'animal.* (Effects on animals of abrupt decompression.) *C. R. Soc. Biol., Paris*, 1939, 131, 1044-1046.—The use, for high altitudes, of planes equipped with an airtight cabin in which a pressure of about 525 mm Hg (corresponding to an altitude of about 3000 meters) is kept constant raises the problem of the effect on the pilot of an abrupt lowering of the pressure (e.g. in case of a break of the porthole pane, which lowers the pressure to about 198 mm Hg). That effect has been studied in dogs under narcosis by means of a double compartment box, in which the compartments could be kept at different pressures. The

decrease was obtained by the breaking of the wall separating the two compartments. The sudden transition from a pressure of 525 mm Hg to one of 230 mm Hg (= 9000 m) caused only a slight increase in the pulse rate and blood pressure. The most marked effect was severe hemorrhage in the tympanic cavity and petrous sinus and an abnormal swelling of intracranial veins. There was no break of the tympanum, but it is to be noted that in dogs that organ is much stronger than in man.—C. Nony (Sorbonne).

1281. Boling, J. L., Blandau, R. J., Wilson, J. G., & Young, W. C. Post-parturitional heat responses of newborn and adult guinea pigs. Data on parturition. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 128-132.—"92 of 93 newborn females and 121 of 123 newborn males displayed a response when fingered which is similar to the heat response of adult females. The behavior is independent of the post-parturitional heat in the adult and does not depend on the presence of the maternal ovaries. In the adult post-parturitional heat was displayed by a smaller percent of animals and was shorter than normal heat. The preponderance of evidence suggests that post-parturitional heat is induced by factors associated with ovulation in the maternal ovaries. The interval between delivery of the first and last members of a litter was less than 30 minutes in 79 of 80 cases. The time of parturition in 99 animals was distributed about evenly throughout the 24 hours of the day."—H. Peak (Randolph-Macon).

1282. Brain, W. R. Sleep: normal and pathological. *Brit. med. J.*, 1939, 51-53.—W. J. Brogden (Wisconsin).

1283. Burnstein, C. L. Effect of spinal anesthesia on intestinal activity. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 291-293.—Intestinal movements of 6 dogs before and after injection (5th or 6th interspace) of 100 mg. of procaine dissolved in 2 cc. of normal saline were observed by means of a balloon inserted into the lumen of the proximal end of the Thiry-Vella loop and connected to a water manometer. The anesthesia caused a marked increase in intestinal contractions in the normal unmedicated dog.—H. Peak (Randolph-Macon).

1284. Caramanna, G. Influenza delle emozioni sulle percezioni. (The influence of emotions on perception.) *Pisani*, 1938, 58, 459-473.—The author analyzes the intellectual procedure involved in the sensory-motor arc, and discusses several causes that may disturb this activity. He also points out the influence of emotions as demonstrated by several actual cases.—R. Ricci (Rome).

1285. Chopard, L. La biologie des Orthoptères. (Biology of the Orthoptera.) Paris: Lechevalier, 1938. Pp. 512 + 453 pictures. 250 frs.—Description of the various species of Orthoptera, their geographical and ecological distribution now and in former epochs, their characteristics according to the different environments, their burrows and shelters, reproductive functions, phases of development, habits, musical reactions, regeneration, defence

reflexes, tropisms, mimetism, variations and heredity, and finally social life. Each chapter includes a long bibliography in 5 languages.—C. Nony (Sorbonne).

1286. Coermann, R. Untersuchungen über die Einwirkung von Schwingungen auf den menschlichen Organismus. (Investigations on the effect of vibrations on the human organism.) *Industr. Psychotech.*, 1939, 16, 169-206.—A study of the effects of mechanical vibrations ranging from 15 to 1000 cycles. Various physiological and psychological tests were applied before and after a 2-hour exposure to the vibrations, and the frequency of maximal influence was determined. Visual acuity was the only sensory function to be disturbed. The more "mental" functions were especially affected by small amplitudes of vibration. An interference with the patellar reflex is the most striking of the physiological effects. Vibrations above 140 cycles are not mechanically transmitted to the head, provided the amplitude is not too great. For every subject there are resonance frequencies at which the visual disturbance is especially great.—D. M. Purdy (Mills).

1287. Collier, H. O. J. Central nervous activity in the earthworm: I. Responses to tension and to tactile stimulation. *J. exp. Biol.*, 1939, 16, 286-299.—Experiments are described on the responses to tension and tactile stimulation of preparations of the earthworm, *Lumbricus terrestris* L. Some 20-40 continuous body segments were used, without sex organs, and without the modifications of nerve cord, gut, and blood vessels occurring in the head region. The preparations were suspended in a bath of frog Ringer's solution. Peristaltic movements were initiated by longitudinal tension and by certain kinds of tactile stimulation. They did not occur in the absence of stimulation and ceased within a finite period after cessation of the stimulus. They did not occur after excision of the cord. Tactile stimuli evoked peristalsis. They might also, however, elicit arrhythmic contractions accompanied by immobilization of peristalsis. Heavy vibrations caused immobilization, which could occur without arrhythmic contractions. Immobilization exhibited characteristics of inhibition in that there was (1) a lessening of amplitude and (2) a reduction of frequency of beat, in the recovery from complete immobilization. Inhibition of peristalsis is believed to be conducted through the central nervous system. Inhibitory effects persist after cessation of the stimulus, but inhibition may be followed by "rebound." 11 references.—C. K. Trueblood (Harvard).

1288. Collier, H. O. J. Central nervous activity in the earthworm: II. Properties of the tension reflex. *J. exp. Biol.*, 1939, 16, 300-312.—Using techniques outlined in a prior paper, the author reports observations on the responses to tension of preparations of the earthworm. These responses, referred to as tension reflexes, are found to exhibit a threshold to weight, the value of which varies between 0.1 and 1.0 g, measured as direct tension applied to the preparation. After removal of an applied stimulus, peristaltic responses may continue for varying periods up to but seldom exceeding 3 minutes. They

depend on the magnitude of the applied stimulus, but not on the height of the contractions occurring. Such continuation of response after removal of the stimulus is held to be a true after-discharge. It is a coordinated movement of both muscle sets which may be perfectly rhythmic. It may be inhibited by certain stimuli, or its frequency may be increased by application of stimuli of a type other than that eliciting the original response. In preparations submitted to continuous tension, the response dies away within 25 minutes, the rate of beat showing a phase of acceleration, a plateau phase, and a phase of decline. Observations of the frequency of beat under varying conditions are also reported. 7 references.—C. K. Trueblood (Harvard).

1289. Coon, J. M., & Rothman, S. Nature of the pilomotor response to acetylcholine. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 229-231.—"Experiments are cited which indicate that the local pilomotor action following intradermal acetylcholine occurs by virtue of its nicotine-like action, and that this drug as well as nicotine and other drugs possessing nicotine-like action exert this influence through an axon reflex the receptor end of which has several properties characteristic of autonomic ganglia and the effector end of which is evidently adrenergic."—H. Peak (Randolph-Macon).

1290. Coon, J. M., & Rothman, S. Nature of a sweat response to drugs with nicotine-like action. *Proc. Soc. exp. Biol., N. Y.*, 1939, 42, 229-231.—"Localized sweat secretion can be elicited by intradermal injection of drugs with nicotine-like action. This effect is accomplished through a peripheral axon reflex mechanism which is easily differentiated experimentally from the direct muscarine action of acetylcholine on the sweat glands."—H. Peak (Randolph-Macon).

1291. Crutchfield, R. S. Psychological distance as a function of psychological need. *J. comp. Psychol.*, 1939, 28, 447-469.—In 10-foot runways in which food was always placed at the end of a side alley 6 feet from the starting point, blind rats were tested to determine how "psychological distance" varies with food-deprivation periods of 12, 24, and 48 hours' duration. The actual starting point and food alley varied from trial to trial. There was a side alley at every foot. "Psychological distance" was measured in terms of the first alley entered by the animal after leaving the starting point. The means of the distributions for the 12-, 24-, and 48-hour periods in the first experiment were 4.01, 4.90, and 5.61. In a further experiment with side alleys to the right and left rather than to the left alone, the means were, respectively, 3.7, 5.3, and 6.1. Results from both experiments indicate "a substantial increase in psychological distance under conditions of increased need, and a substantial decrease in psychological distance under conditions of decreased need." Theoretical implications are considered.—N. L. Munn (Vanderbilt).

1292. Dijkstra, B., & Dirken, M. N. J. The effect of forced breathing on the motor chronaxie.

J. Physiol., 1939, 96, 109-117.—In rabbits forced breathing increases the motor chronaxie measured percutaneously both at the motor point of the flexors and at the trunk of the median nerve. This rise, however, fails to appear after section of the nerve and also after destruction of the sympathetic innervation. Since the chronaxie remains uninfluenced by hyperventilation when measured at the exposed nerve trunk or the exposed muscles, it is concluded that forced breathing produces only an apparent change in chronaxie resulting from a changed impedance of the skin and underlying tissues. The skin impedance is controlled by the autonomic system, which in turn is affected by hyperventilation. Hence the results of experiments in man concerning the relation of the sympathetic to neuromuscular excitability must be accepted with reserve because the stimulation is percutaneous.—M. E. Morse (Baltimore).

1293. Ellson, D. G. Spontaneous recovery of the galvanic skin response as a function of the recovery interval. *J. exp. Psychol.*, 1939, 25, 586-600.—"The galvanic skin response was conditioned to tonal stimuli and then extinguished in four groups of 20 subjects. After intervals of 5, 20, 60 or 180 minutes (a different interval for each group) spontaneous recovery was measured by means of a second extinction. In terms of mean amplitude of the first two responses in the second extinction, a progressive, negatively accelerated recovery was found as a function of the increasing interval. Using the number of responses required for extinction to a criterion, however, no progressive recovery was found. An hypothesis is presented suggesting that these results may be explained in terms of two factors, (I) expectation of shock, which did not show a progressive alteration during the period following the first extinction, and (II) negative adaptation, which influenced the amplitude of response obtained for a given degree of expectation. An attempt to investigate the role of expectation of shock, planned as part of the procedure, was found to be inadequate to the problems."—H. W. Karn (Pittsburgh).

1294. Feng, T. P. Studies on the neuromuscular junction. XIII. The localized electrical negativity of muscle around n-m junction due to high-frequency nerve stimulation. *Chin. J. Physiol.*, 1939, 14, 209-224.—(*Biol. Abstr.* XIII: 14717).

1295. Forti, C. Ergografia e dinamometria. (Ergography and dynamometry.) *Med. Sport Educ. fis.*, 1939, 2, 73-78.—Individuals who show the greatest strength in isolated isometric contractions do not always give the highest records with the ergograph. The majority of students who were examined exhibited more strength in the isometric contractions than did a group of laborers, whose diet was largely vegetarian. However, the highest records were made by persons trained in muscular activity, a fact that indicates that training increases the activity of certain nerve centers and increases the influence of these centers on the ergographic curve of fatigue. Certain subjects showed, after repeated

experimentation, parallel variations in strength as measured by the dynamometer and the fatigue curve. Comparisons were made on the work curves made by students on days preceding school examinations and days far removed from such examinations. Results were scattered and varied for the different subjects.—*R. Ricci* (Rome).

1296. Gilhousen, H. C. The rat's speed of locomotion to intermediate fields. *J. comp. Psychol.*, 1939, 28, 471-496.—The apparatus was a 24-ft. runway at the end of which four different conditions were inserted. These were (1) small space—no delay, (2) small space—delay, (3) large space—no delay, and (4) large space—delay. Beyond the altered part, the rats ran directly to a food box. Confinement in each delay situation was for 30 seconds. From the greatest to the slowest speed elicited, the conditions ranked as follows: 1, 3, 4, and 2. The conditions yielded different changes in speed of running from trial to trial. Under all conditions, the first 8 ft. of the path produced the slowest speed. The average unit speeds (for three 8-ft. units) showed a positive speed gradient. When speeds on the successive units of the path were averaged over a period of days, the positive gradients for each condition were seen to approximate a constant acceleration in rate. Other quantitative and qualitative aspects of behavior produced by the different situations are discussed.—*N. L. Munn* (Vanderbilt).

1297. Guilmain, E. Pour acquérir des poumons sains et solides. (An apparatus for respiratory training.) *Ann. Enfance*, 1939, 123, 21-22.—Spirometers give the vital capacity of a subject, but do not easily allow for exercises in respiratory training, as does this small and simple apparatus (10 × 10 × 26 cm). It consists of a tube immersed in a liquid inside a glass vessel; the subject must exhale into the tube, and the deeper the latter is immersed the greater is the resistance to expiration and the greater the respiratory effort necessary. A scale makes it possible to measure this effort, which can be graded according to the level of the tube in the liquid.—*C. Nony* (Sorbonne).

1298. Hoefer, F. A., & Putnam, T. J. Action potentials of muscles in normal subjects. *Arch. Neurol. Psychiat.*, Chicago, 1939, 42, 201-218.—*W. J. Brogden* (Wisconsin).

1299. Hollingworth, H. L. Psycho-dynamics of chewing. *Arch. Psychol.*, N. Y., 1939, No. 239. Pp. 90.—Chewing is a satisfying activity, as manifested by the chewing of straws, rubber bands, and tooth picks, to say nothing of chicle preparations. Various experiments were conducted on a few persons with the aim of exploring the role played in the psycho-physical economy of human activity by this motor automatism. To control the factor of interest in chewing, mints, bon-bons and water were also administered. Study of the energy costs of chewing as reflected in pulse rate revealed that pulse acceleration varies with the initial activity level. Measurement of muscular tension in an

inactive part of the body showed that while the main occupation is pursued without work decrement, muscular tension in other parts of the system measurably decreases during sustained chewing. Relaxation, attendant upon chewing activity, was found to increase the rate of spontaneous fluctuation in illusions of reversible perspective. This is the reverse of the alleged effect of fatigue on these fluctuations, and resembles that of refreshing agents such as tea and coffee. Measurements of the energy put into the movements of the principal activity showed an increase during sustained chewing. Speed in typing was found to increase while chewing. With one subject it was at the expense of accuracy, but the other made notable speed and improved accuracy. Sustained chewing need not be expected to affect all in the same way. Output studies made in 9 kinds of work showed no evidence that sustained chewing interfered with output.—*E. Achilles* (Columbia).

1300. Hollingworth, H. L. Chewing as a technique of relaxation. *Science*, 1939, 90, 385-387.—The author presents a summary of a series of experiments designed to throw light on the use of chewing as a "tension outlet." Studies were carried out in which tension was manifested as restlessness, as a feeling of strain, as fatigue, as effort, as interference, and as direct muscular tension. It is found that "the collateral motor automatism involved in the sustained use of the conventional masticatory muscles does result in a lowering of tension, and the tension thus reduced is muscular."—*F. A. Mole, Jr.* (Brown).

1301. Hooker, D. The origin of the grasping movement in man. *Proc. Amer. phil. Soc.*, 1938, 79, 597-606.—This paper describes observations and cinematographic records of the behavior of a number of human fetuses. "Evidence is presented indicating that the grasping reflex first appears as a partial finger flexion, in which the thumb is not involved, at about the 11th week of menstrual age in human fetuses. Finger flexion becomes quite complete by 13½ to 14 weeks. Gripping an object appears about the 18th week. Though the thumb may be feebly motile as early as 12 weeks, in response to palmar tactile stimulation, it rarely responds with regularity before the 15th week, and does not play any role in the grasp by 25 weeks, the terminal age of these observations. Further observation may alter somewhat the age levels at which these characteristic responses appear. Furthermore, the conditions under which the observations are made, involving slow, progressive asphyxia, necessitate care in generalization."—*R. M. Gagné* (Brown).

1302. Juarros, C. Valor práctico de las pruebas colectivas de Oseretzky para la determinación de la edad motora. (Practical value of the group tests of Oseretzky for determining motor age.) *Psicotecnia*, 1939, 1, 40-60.—It was found that the individual method of giving the Oseretzky tests for determining motor age or physical development required too much time. The writer has revised the battery of

tests so that they can be given as group tests. Six groups of motor tests are given: static coordination, dynamic coordination, speed of movement, simultaneous movement, force of movement, and precision of movement. Tests include examination for separate and coordinate hand and leg movements. There is a discussion of the scoring, evaluation, and advantages and disadvantages of individual and group testing. The writer, finally, enumerates the practical value of such tests in the physical education of normal children and in the determination of physical characteristics of psychopathic and neurotic children.—*J. E. Bader* (Letchworth Village).

1303. Knowles, F. G. W. The influence of anterior-pituitary and testicular hormones on the sexual maturation of lampreys. *J. exp. Biol.*, 1939, 16, 535-547.—*C. K. Trueblood* (Harvard).

1304. McCulloch, T. L., & Haslerud, G. M. Affective responses of an infant chimpanzee reared in isolation from its kind. *J. comp. Psychol.*, 1939, 28, 437-445.—A chimpanzee reared in isolation from other animals was tested at 7 and again at 15 months to determine the effect of various moving and motionless objects upon his behavior while approaching food in a standardized situation. The moving and motionless objects were similar in respects other than movement (e.g. live snake and mounted snake, moving ball and motionless ball). Behavior was rated in terms of general excitement, interest, aggressiveness, avoidance, and adaptation. At 7 months there was affective disturbance only toward moving objects. Avoidance predominated. At 15 months, however, intense disturbance was manifested as a reaction to a wide range of objects, and motion was not a differentiating factor. Aggression was much in evidence at this age level. Objects which elicited most aggression were intermediate in capacity to elicit avoidance.—*N. L. Munn* (Vanderbilt).

1305. McFarland, R. A. The psycho-physiological effects of reduced oxygen pressure. *Res. Publ. Ass. nerv. ment. Dis.*, 1939, 19, 112-143.—The results of a series of experiments concerned with the psychological effects of oxygen deprivation which have been carried out during the last ten years at Cambridge, Columbia, and Harvard Universities are summarized. The author concludes that the sensory and mental impairment which occurs in normal human subjects under experimentally produced anoxia may be attributed to the diminished partial pressure of oxygen in the blood being delivered to the nervous tissue, the cortical cells apparently suffering more than other parts of the central nervous system. "These experiments demonstrate that psychological processes are not fundamentally different from the cortical or physiological ones. They simply involve different degrees of integration and manifest different characteristics of the same mechanisms."—*M. Keller* (Yale).

1306. Miles, W. R. Experimental modification of the polarity potential of the human eye. *Yale J. Biol. Med.*, 1939, 12, 161-183.—Ocular polarity

potentials were studied by means of voluntarily controlled fixations of the eyes which change the relation of the cornea and retina to skin electrodes placed laterally about the eyes. Massaging and applying pressure to the eye with the fingertips increased the potential, while the instillation of a hypertonic salt solution produced a marked rise in potential which persisted for several minutes. Potentials recorded with the eyelids closed were higher than with the eyes open. "The eye potential was found to conform to the pattern for blood pressure, metabolism and other functions which decrease with relaxation and inactivity when the subject is in a comfortable posture and free from apprehension. If the subject is afraid and tense the eye potential is increased."—*A. Chapanis* (Child Guidance Study, Franklin, Tenn.).

1307. Müller, L. R. Über Ermüdung und über Erholung. (Fatigue and recuperation.) *Klin. Wschr.*, 1939, 18, Pt. I, 113-118.—The processes of fatigue and recuperation cannot be entirely physical and chemical. A vital power, as yet unknown and inaccessible to investigation, must be assumed. It helps to restore the electrical potential of the cells and body fluids.—*P. L. Krieger* (Leipzig).

1308. Munk, F. Über die Verteilung der elektromotorischen Spannungsunterschiede der menschlichen Haut und ihre Beziehung zum vegetativen System. (The distribution of differences in electromotor tension on the human skin and its relation to the vegetative system.) *Wien. med. Wschr.*, 1939, 89, Pt. I, 525-530.—The body surface shows a very definite distribution of electromotor power held in a certain equilibrium. These differences in tension are changed by influences on remote parts of the skin (cooling). The electric phenomena are connected with the vegetative system, and perhaps the skin structures have a conducting function. The continuous tonus of the sympathetic points to this conclusion.—*P. L. Krieger* (Leipzig).

1309. Richter, C. P., & Schmidt, E. C. H. Behavior and anatomical changes produced in rats by pancreatectomy. *Endocrinology*, 1939, 25, 698-706.—Pancreatectomy of albino rats reduced their activity as measured by the rotary drum to almost nothing. Control laparotomy experiments showed that the operative manipulation did not make the rats inactive. Reduced food intake and atrophy of the endocrine glands (with the possible exception of the ovaries) were ruled out as causal factors in producing the inactivity. It was concluded that the depancreatized rats became inactive largely because of their inability to metabolize carbohydrate.—*W. J. Brogden* (Wisconsin).

1310. Rowan, W. Light and seasonal reproduction in animals. *Biol. Rev.*, 1938, 13, 374-402.—A review of experimental work. Investigations on 50 species of animals are discussed. Artificial increases of illumination in midwinter induce development of the sex organs, while decreases during spring days induce regression. Birds may be brought into breeding condition two or even three times in a year, but

interpolated rest is required. The reproductive rhythm depends on pituitary activity. An extensive list of references is included.—*R. M. Gagné* (Brown).

1311. *Schaefer, H., & Haas, P. Über einen lokalen Erregungsstrom an der motorischen Endplatte.* (A local stimulation current at the motor end-plate.) *Pflüg. Arch. ges. Physiol.*, 1939, **242**, 364-381.—Proofs are given that the local negativity which always arises in the muscle fibers underlying the end-plate on indirect stimulation is the beginning of every indirect muscle current and an analogue of the catelectrotonic potential of direct stimulation. It forms the electric transmission between nerve and muscle, the electrotonic loading and unloading of the muscle fiber. Blocking by fatigue, curare or the Wedensky method causes the current to sink below its threshold (8 mV). Its summation explains facilitation. It varies spontaneously and independently of variations in the nerve action current, thus demonstrating a block in the end-plate. It cannot arise through the formation of acetylcholine in the end-plate, since it is abolished by curare, although the latter does not stop the production of acetylcholine. The role of acetylcholine is probably not that of a transmitter, but a regulator of transmission. The current acts as a local stimulus according to the tension theory of electric stimulation.—*M. E. Morse* (Baltimore).

1312. *Scheer, B. T. Homing instinct in salmon.* *Quart. Rev. Biol.*, 1939, **14**, 408-430.—Specimens of *Salmo salar*, *S. Gairdnerii*, *O. nerka*, *Oncorhynchus tshawytscha*, *O. gorbuscha*, and *O. kisutch* reared, marked, and liberated in a particular river have been shown to return, in most cases, to the same river for spawning. A few will stray into streams up to 50 miles away and rarely into streams as much as 100 miles away. This isolation has led to demonstrable anatomical changes which characterize the fish in particular streams. Fish tagged in a given area at sea go to different spawning rivers. The fish return to the place of their origin even after migrating to sea for considerable distances. The mechanism for this homing behavior is still unknown.—*O. W. Richards* (Spencer Lens Company).

1313. *Schultz, J. H. Psyche und Kreislauf.* (Psyche and circulation.) *Zbl. ges. Neurol. Psychiat.*, 1939, **94**, 349.—Mental life is part of a vital circle which, under pathological conditions, may become vicious. Psychic events are experienced brain functions. Fundamentally, purely psychic moments may cause circulatory disorders in normal people, though this occurs rarely. Emotional control and concentration in autogenous training are of great importance, as evidenced by the "dying at will" of the Oriental and the stigmata of the neurotic mystic, both of which greatly endanger circulation.—*P. L. Krieger* (Leipzig).

1314. *Scott, M. G. The assessment of motor abilities of college women through objective tests.* *Res. Quart. Amer. Ass. Hlth. phys. Educ.*, 1939, **10**, 63-83.—"The aim of the experiment was to evaluate

the motor abilities of college women as a basis for guidance of the student in physical education, and for organization and content of classes." Batteries are described which measure motor ability with a relatively high degree of validity. The reliability of the group performance was lower than that found in an investigation of boys, but this figure would probably improve if more trials were given on each test item.—*F. W. Finger* (Brown).

1315. *Travis, R. C. The convergence of cortical and subcortical patterns in motor learnings.* *J. exp. Psychol.*, 1939, **25**, 643-649.—Simple ocular pursuit of an oscillating target and voluntary pursuit of the same target were studied as representative of a subcortical function and a cortical function respectively. As the latency of ocular pursuit and manual pursuit progressively approached equality, accuracy of coordination progressively increased. The minimum speed of ocular pursuit was found to be about 2° per second. The maximum speed was found to be 60° to 90° per second. The pausation time of the eye when the target reverses direction in ocular pursuit was found to be 35 ms. The pausation time of the eye in voluntary refixation of two points was 254 ms. This difference probably indicates that ocular pursuit is primarily subcortical whereas voluntary refixation is initiated in the cerebral cortex. Other lines of evidence bearing on the hypothesis that ocular pursuit is subcortical and manual pursuit cortical are presented in the report.—*H. W. Karn* (Pittsburgh).

1316. *Tullio, P. I riflessi orientativi nello studio delle attività mentali.* (Orientative reflexes in the study of mental activities.) Bologna: Zanichelli, 1938. Pp. 172. L. 30.—The author describes the optical, tactile, and acoustic orientative reflexes as related to various mental activities, and discusses their reciprocal relationships. In conclusion he describes a technique for the study of somatic reflexes on animals and the technique of microsurgery on the human eye.—*R. Ricci* (Rome).

1317. *Urban, J. L'épithymologie (la désiologie).* (The science of desires.) Paris: Alcan, 1939. Pp. 356. 50 frs.—"Desires" (or drives) are the basis of all social phenomena; the notions of value and will, which are more or less complex aspects of desire, dominate the whole field of economics. Hence the conclusion that the chief economic and social laws are grounded on psychology, and especially on the psychology of desires. But between psychology that studies desires and economics that studies the means of satisfying them and the social environment which is their field of action, there is room for another science to study the relations between those two classes of facts; the author, who is a Rumanian economist, calls this science "epithymologie," or economic psychology, and defines the laws of desires in relation to values, subjective profits and losses, quality, quantity, usefulness, belief, supply and demand, exchange value, aim, and limitations due to time and space (Part II). Part III deals with will and free will, the competition of desires, and the training of the will.—*C. Nony* (Sorbonne).

1318. Zutt, J. *Über das Lachen, das Weinen und das Gähnen.* (Laughing, crying, and yawning.) *Allg. Z. Psychiat.*, 1939, 110, 224-231.—A discussion of the psychology of expression and its different manifestations and intensity levels.—P. L. Krieger (Leipzig).

[See also abstracts 1176, 1198, 1215, 1234, 1247, 1255, 1272, 1349, 1357, 1359, 1395, 1396, 1446, 1451, 1461, 1465, 1500, 1615.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

1319. Billström, J. *Något om indikationer och kontraindikationer för hypnos.* (Concerning indications and contra-indications for hypnosis.) *Svenska Läkartidn.*, 1939, 36, 1853-1867.—A detailed discussion, based upon the literature and the personal experiences of the writer, of indications and contra-indications for hypnosis, covering most problems which have been under discussion. This therapeutic method is said to be important and needed, but must be used with great caution. Examples are offered of the different kinds of ailments which might be benefited.—M. L. Reymert (Mooseheart Laboratory for Child Research).

1320. Brill, A. A. *The introduction and development of Freud's work in the United States.* *Amer. J. Sociol.*, 1939, 45, 318-325.—The introduction of the work of Sigmund Freud and the development of psychoanalysis in the United States may be viewed in terms of the experiences of American students who had the first direct contacts with Freud and the movement which he led. Early training in psychoanalysis was not systematic. Reading and discussion of case materials, the study of Freud's written works, and especially the discovery of Freudian mechanisms in personal experiences served to convince students of the value of psychoanalysis. Lectures by psychoanalysts to American medical and lay audiences provoked antagonisms but at the same time stimulated discussion and interest, and in spite of great resistance to the new ideas, the subject gained an increasing number of adherents. The translation of Freud's works into English was an added impetus. Contacts with non-medical groups were of equal importance with those with medical groups in popularizing and establishing Freud in this country.—D. L. Glick (Brown).

1321. Burgess, E. W. *The influence of Sigmund Freud upon sociology in the United States.* *Amer. J. Sociol.*, 1939, 45, 356-374.—Early failure of psychoanalysis to make headway with sociologists in the United States was due partly to the lag between time of publication and actual consideration of Freudian theories, but more basically to an aversion to the explanation of human behavior in terms of sexual motivation, its particularistic emphasis, the simpler and apparently adequate cultural interpretations of behavior, a predisposition against absolute as opposed to relative explanations, its apparently questionable technique, the rise of rival schools of psychoanalysis, its lack of integration

with previous studies of instincts, and a preoccupation on the part of sociologists with their own problems. The further working out and integrating of methods for investigating the subjective aspects of their phenomena are viewed as the basic methodological problem of the psychological and social sciences. Students in psychoanalysis and socioanalysis share a mutual need of understanding both aspects of conduct, psychogenic and cultural. Psychoanalysis has had several levels of influence upon sociologists since 1920. A final stage in combining psychoanalytic and sociological methods remains to be reached, that of cooperative research.—D. L. Glick (Brown).

1322. Burke, K. *Freud—and the analysis of poetry.* *Amer. J. Sociol.*, 1939, 45, 391-417.—There is an important margin of overlap between the esthetic and the neurotic, in that the acts of both the poet and the neurotic are symbolic acts. In so far as this margin prevails, co-ordinates developed for the charting of the one field may be taken over for the charting of the other. There are also important divergencies between the two fields; and in so far as the esthetic and neurotic fields diverge, there must be a corresponding difference in co-ordinates. Freud's perspective, developed primarily for the charting of neurosis, is better suited to the margin of overlap than to the area of divergency. As regards the margin of overlap, two modifications of Freudian co-ordinates are offered: (1) A poem's structure should be discussed as a recipe or synthesis of several motives rather than in terms of one essential motive with all others treated as derivatives from it; (2) Freud's too patriarchal emphasis obscures the patriarchal factors operating in literary works that symbolize a change of lineage or identity. As regards the area of divergency, Freud's co-ordinates, in stressing the poem as dream, understress the poem as a communicative structure and as a realistic gauging of human situations. Communication, rather than wish fulfilment, is the key term for literary analysis.—D. L. Glick (Brown).

1323. Coover, J. E. *Reply to critics of the Stanford experiments on thought transference.* *J. Parapsychol.*, 1939, 3, 17-28.—In an unfinished article Coover answered critics who held that conclusions other than those of his 1917 monograph were indicated by the data. The criticisms are not valid because of "fallacious selection of particular experiments, uncontrolled sources of error in the original research, and lack of regard for negative results obtained in experiments in which the subjects were of the gifted type." Coover's article was emended and edited by J. L. Kennedy.—C. E. Stuart (Duke).

1324. Dunlap, K., & others. *Adequate experimental testing of the hypothesis of "extra-sensory perception" based on card-sorting.* *J. Parapsychol.*, 1939, 3, 29-37.—"A program of definitive nature is described. Suggestions are given regarding general procedure, safeguards against illicit cues, the way in which cards are handled by subjects, scoring and keeping of records, quantitative specifications,

selection and orientation of subjects, selection of assistants, general superintendence of the experiment, protection of materials and records, and elaboration of obtained data."—*C. E. Stuart* (Duke).

1325. **Ellis, H.** *Freud's influence on the changed attitude toward sex.* *Amer. J. Sociol.*, 1939, 45, 309-317.—The strength of reactions, pro and con, to Freud's theories may be attributed in large part to the traditional sanctity and yet obscenity of the subject of sex and Freud's extravagant presentation of the subject. Freud's art is the poetry of psychic processes which lie in the deepest and most mysterious recesses of the organism. To emphasize the artist in Freud is not to diminish his significance for science. Despite the validity of radical criticisms of most of his results, Freud is to be recognized as one of the greatest masters in thought. By making no allowance for the "sacredness" of sex and by supplying emphasis to the recognition and acceptance of its place in life, Freud made a specific contribution to the changed attitude of our time toward sex.—*D. L. Glick* (Brown).

1326. **Fenichel, O.** *Problems of psychoanalytic technique.* *Psychoanal. Quart.*, 1939, 8, 438-470.—In this installment the author briefly and systematically reviews the literature on psychoanalytic technique, commenting upon the particular contributions, both positive and negative, of many writers, and stressing the importance of various developments in technique. A 200-item bibliography is appended.—*M. H. Erickson* (Eloise Hospital).

1327. **Gyárfás, K.** *Beiträge zur Frage des Oneirid.* (Contributions to dream interpretation.) *Allg. Z. Psychiat.*, 1939, 111, 233-245.—The close connection between disturbances of consciousness and of sleep explains the possible origin of cathartic images in distorted consciousness, even without psychogenic factors. As in dreams, these images may be complex or fragmentary, and more or less affectively toned. There is a possible explanation in psychical terms: vasomotor effects, already constitutionally or pathologically labile, might ensue as exaggerated responses to psychical influences, and might functionally dominate the regulation of consciousness as well as that of sleep.—*P. L. Krieger* (Leipzig).

1328. **Healy, W.** *Psychoanalytic contributions to the understanding and treatment of behavior problems.* *Amer. J. Sociol.*, 1939, 45, 418-425.—Without denying the tremendous influence of psychoanalysis upon the study of human behavior, a tendency toward overvaluation of psychoanalytic concepts as providing solutions for many individual and social ills has to be recognized. Freud is not to be blamed for this—he has clearly recognized the physical and social determinants and that what has been built upon the foundations of psychoanalysis is not a closed system. Behavior problems are mainly such because of their social significance. Although many illustrations are possible of the deeper causations of misconduct, yet these factors have often been overstressed. There is no reason

why the strengths of psychoanalysis cannot be retained while a broad scientific orientation concerning behavior problems is maintained. Psychoanalysis and sociology should represent collaborative efforts.—*D. L. Glick* (Brown).

1329. **Jelliffe, S. E.** *Sigmund Freud and psychiatry: a partial appraisal.* *Amer. J. Sociol.*, 1939, 45, 326-340.—Freud entered the study of psychiatry after a period of training and experience in physiology and neurology. Because he has not always been in the main stream of psychiatry, his work is more difficult to appraise than that of Kraepelin. Freud's skepticism of the hereditary interpretation of the etiology of neuroses and psychoses, his new technique for uncovering etiological factors, and his regrouping of the major and minor neuroses constitute important contributions, as do the findings of his excursions into phylogenetic problems. His triadic formulation of the id, ego, and super-ego reveals the conflict of biological and social phenomena. Despite great opposition, psychoanalytic conceptions have infiltrated psychiatry, and in this country they have resulted in a vital approach to the many problems of social relationships.—*D. L. Glick* (Brown).

1330. **Kroeber, A. L.** *Totem and taboo in retrospect.* *Amer. J. Sociol.*, 1939, 45, 446-451.—Freud's explanations of cultural origins waver between being historical and being psychological in character. As history they remain wholly unfounded, but they may prove to contain elements contributing to understanding of the generic human psychology underlying the history of human culture, especially its recurrent or repetitive features. Psychoanalytic intransigence as to historical interpretation is due partly to an "overdetermination" in Freud's own thinking and partly to rigidity in his followers, as exemplified by Jones and Róheim. Psychoanalysis has maintained an all-or-none attitude toward general science. Science has profited by definite absorptions from psychoanalysis.—*D. L. Glick* (Brown).

1331. **Lasswell, H. D.** *The contribution of Freud's insight interview to the social sciences.* *Amer. J. Sociol.*, 1939, 45, 375-390.—Freud's most abiding contribution to social science is the observational standpoint which he invented. The psychoanalytic standpoint is intensive rather than extensive, scientific and therapeutic rather than indoctrinating. It is an interview rather than a participant, spectator, or collector relationship; and it is an insight interview. The criteria of insight are formulated, and the point is made that simultaneous insight into the person, personality, and culture is obtained. From this standpoint the insight interview is a means of acquiring skill in the discovery of culture and hence is important for social scientists who are mainly concerned with culture. The psychoanalytic standpoint has prompted the use of more intensive methods in social observation; psychoanalytic hypotheses and findings have stimulated research. The rich yield of intensive investigation has called for more refined definitions of basic terms

like "trait," "reaction," "person," "personality," "conduct," "behavior," and "culture," and has posed the task of calibrating the observations made from one standpoint with observations made in any other position along the continuum of intensiveness-extensiveness.—D. L. Glick (Brown).

1332. Murphy, G., & Taves, E. **Covariance methods in the comparison of extra-sensory tasks.** *J. Parapsychol.*, 1939, 3, 38-78.—An experimental unit consisted of 4 different card-calling tasks by the same subject. 1000 such units were observed with 74 subjects. The cards were screened from the subjects by a wall, and in some cases by large distances. The results considered as a whole did not attain statistical significance. Covariance ($r = .11$) between responses on three of the tasks was observed.—C. E. Stuart (Duke).

1333. Price, H. **Fifty years of psychical research.** New York: Longmans Green, 1939. Pp. xii + 383. \$3.50.—This is a history of modern psychical research, together with an account of the principal experiments which have been carried out and the results obtained. Haunted houses, poltergeists, fire-walking, telepathy, trances, and extra-sensory perception are among the subjects dealt with. All noted mediums are reviewed and the various methods used to test the genuineness of their manifestations are described. Fraudulent methods are exposed and an effort is made to give the reader factual data from which to draw his own conclusions. The author states his personal beliefs in a final chapter. Appendices include the text of the author's bill for the regulation and registration of mediums and a bibliography of the best books on psychical research.—M. Keller (Yale).

1334. Radó, S. **Developments in the psychoanalytic conception and treatment of the neuroses.** *Psychoanal. Quart.*, 1939, 8, 427-437.—The author discusses briefly the gradual course of recognition, in the development of psychoanalysis, of the importance of anxiety, and the resulting recognition of neuroses as disorders of ego functioning. He then discusses anxiety as the anticipation of pain from impending injury; the relationship of fear and anxiety to emergency control measures of the ego; the reflex character of anxiety; the riddance principle and riddance reflexes; and he stresses the validity of the conception of a neurosis as ego functioning altered by faulty measures of emergency control. 6 references.—M. H. Erickson (Eloise Hospital).

1335. Riess, B. F. **Further data from a case of high scores in card guessing.** *J. Parapsychol.*, 1939, 3, 79-84.—In a previous article the results of an unusually high-scoring subject in an ESP test were reported. In this article the writer gives additional information regarding experimental conditions and methods of recording and checking, and lists the complete raw data.—C. E. Stuart (Duke).

1336. [Various]. **Symposium on ESP methods, at the meeting of the Southern Society for Philosophy and Psychology.** *J. Parapsychol.*, 1939, 3,

85-115.—After introductory remarks by the chairman, J. B. Rhine, the following papers are presented: A summary of mathematical advances bearing on ESP research, by T. N. E. Greville; Some mathematical problems for future consideration suggested by the ESP research, by J. A. Greenwood; A further advance in methods for testing extra-sensory perception, by J. G. Pratt; Some unsolved problems of methodology, by C. E. Stuart; The role of selection in ESP data, by V. W. Lemmon. A stenographic report of the discussion is given.—C. E. Stuart (Duke).

1337. Wittels, F. **The Neo-Adlerians.** *Amer. J. Sociol.*, 1939, 45, 433-445.—Freud and his psychoanalysis are today being assailed as taking insufficient cognizance of the direct influence of the social situation upon the individual. Insecurity, competition, lack of charity, we hear, are the chief causes of neuroses, and not—as Freud's school teaches—our native constitution plus early childhood impressions, such as the well-known Oedipus complex, its fore-runners and derivatives. The field of "social" etiologies was the exclusive object of Alfred Adler's research, and although his heirs rarely quote him, the "new" discoveries in this field are based on his theories. For this reason the writer calls this school which is now in formation the Neo-Adlerians. Inasmuch as psychoanalysis long ago absorbed a good deal of Adler's investigations, the "discoveries" of these newcomers appear to be the products of cryptomnesia. Psychoanalysis has always reckoned with social factors, the Oedipus complex itself being one of the first social experiences of the infant. Without dialectic interweaving of the biological with the social ego, there could be no psychoanalytic progress. In contesting the salient features of Freud's psychology the Neo-Adlerians are attempting to set the clock back to pre-Freudian times.—D. L. Glick (Brown).

1338. Zilboorg, G. **Sociology and the psychoanalytic method.** *Amer. J. Sociol.*, 1939, 45, 341-355.—While Freud's first contributions had an influence on sociology and anthropology, at the present time the achievements extend little beyond an awareness of a new psychology which can be applied to social phenomena. Two reasons for this are: (1) objections to Freudian theories, especially of instinct; (2) the impression that the social reactions of the individual are assumed to be direct criteria for the reaction of society as a whole. This impression is erroneous, as Freud never intended that his method of parallelism be reduced to methodological absurdity. Sociology is sufficiently mature to adopt the methods of contemporary psychology, which possesses a wealth of empirical data and a well systematized set of scientific hypotheses. The mechanism of the return of the repressed is of particular importance to sociology: in order to understand the dynamics of social life one should look not for the characteristics of the individual's socialized reactions but for those outlets which society offers for the return of the repressed. This involves com-

pletely discarding evaluative preconceptions.—D. L. Glick (Brown).

[See also abstracts 1165, 1169, 1356, 1361, 1371, 1455, 1514, 1587.]

FUNCTIONAL DISORDERS

1339. Antoni, N. **Krigsneuroser.** (War neuroses.) *Svenska Läkartidn.*, 1939, 36, 2097-2100.—A brief general discussion of war neuroses, their etiology, symptoms, diagnosis, prognosis, and suggestions for methods of state compensation.—M. L. Reymert (Mooseheart Laboratory for Child Research).

1340. Baker, A. B. **Cerebral damage in hypoglycemia. A review.** *Amer. J. Psychiat.*, 1939, 96, 109-127.—"From a review of the literature and a study of our own cases it seems very apparent that continued repeated hypoglycemia may definitely produce a depression of the cerebral function and even an irreversible degeneration of the brain tissue and cells, resulting in long continued or permanent functional damage or even death. The factors behind the different individual responses to hypoglycemic insults are at present unknown, hence making it impossible to predict or adequately control the more severe reactions of the resulting brain damage."—R. Goldman (Boston Psychopathic Hospital).

1341. Beals, F. L. **Administrative studies in the education of mental defectives.** *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 197-201.—The history of the special class movement in the Chicago public schools is reviewed. The Bureau of Child Study was established in 1900, and was probably the first such special department of pedagogic research in a public school system. The department administered the work of the ungraded classes up to 1917. At present supervision is done by an assistant superintendent of schools. Classes for mental defectives consist of the primary and intermediate ungraded classes and 26 lower vocational centers. These are housed in elementary school buildings, and defectives participate in the socialization activities of the school. In the centers emphasis is placed on training adolescents in manual skills in order to prepare them to cope with an industrial world.—M. W. Kuenzel (Children's Home, Cincinnati).

1342. Benda, C. E. **Further clinical and pathologic studies in mongolism.** *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 47-58.—True mongoloid deficiency represents a growth disorder in which the absence of proliferative growth of cartilaginous and fibrous tissue is an essential factor. This seems to be related to some disorder of the anterior pituitary. Skull measurements of 125 mongoloid children were graphed, and comparison is made between these growth curves and the normal one. Marked differences in circumference and length are apparent. Histologic study of the skull basis is reported upon briefly. X-ray study showed that skull features are essentially fetal in shape and proportion. The author

found that any disease of the fetus producing growth disorder (such as anemias, infectious diseases including syphilis, and certain congenital heart conditions) is able to exhibit some mongoloid traces. These are temporary arrests in growth. A bibliography of 22 titles is cited.—M. W. Kuenzel (Children's Home, Cincinnati).

1343. Bice, H. V. **A study of an institution population where commitments are made without psychological examination.** *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 259-263.—Reference is made to the inadequate manner in which commitments to the Kentucky institution for the feeble-minded have been made. Procedure was based on inadequate examination by two court physicians, by judges who disregarded the true educational purpose of the institution, and as a consequence of pressure exerted by influential friends of the committed individual. Psychological testing was begun in 1938. 44% of the existing population were found to be idiots, 40% imbeciles, 13% morons, and 3% borderline and above. More than two thirds had mental ages below 6 years, so are judged to be incapable of academic training. Negroes surpassed whites in brightness level. A population so constituted is said to defeat the purpose of a training school.—M. W. Kuenzel (Children's Home, Cincinnati).

1344. Bijou, S. W. **The problem of pseudo-feble-mindedness.** *J. educ. Psychol.*, 1939, 30, 519-526.—The intellectual capacities of school children who are retarded in grade placement and reading achievement, and adults who have limited educational opportunities, non-verbal propensities, or total reading disability are not adequately diagnosed by verbal intelligence tests. "The real feeble-minded may be distinguished from the pseudo-feble-minded by critically examining the range of subtest successes on the regular scales of intelligence."—R. M. Bellows (Maryland).

1345. Bixby, E. M. **Biochemical studies in mongolism.** *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 59-70.—Opposing the hypothesis that mongolism is due to a racial regression, the author publishes a distribution of the blood groups of 125 American mongoloid defectives. This is seen to be practically identical with that of the general American population and unlike that of people of the Mongolian races. Basal metabolic rates of 25 mongoloids aged 6 to 29 years are reported, and the results rule out hyperthyroidism as a condition of mongolism after the sixth year. Fasting serum cholesterols of 50 mongoloids aged 2 to 29 years were found to be within normal limits. Indications are that hypothyroidism is not present in mongolism at least after 2 years of age. Fasting blood sugars, glucose tolerances, serum calcium, inorganic phosphorus, and phosphatase findings are also reported. Apparently a hypofunction of the pituitary accounts for the disorder. A bibliography of 19 titles is appended.—M. W. Kuenzel (Children's Home, Cincinnati).

1346. Blaurock, M. F., Low, A. A., & Sachs, M. **Influence of fear, pharmacologic action, and con-**

vulsion in metrazol therapy. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 233-236.—W. J. Brogden (Wisconsin).

1347. Bradway, K. P. Academic achievement in a group of mentally retarded subjects. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 154-162.—"Results on standard achievement tests administered to mentally retarded subjects were studied in relation to such factors as chronological age, mental age, intelligence quotient, initial achievement level, and length of training period." A correlational study revealed that "except for arithmetic computation, the higher mental age, the lower chronological age, and the lower initial achievement age were associated with the higher yearly increment." Some subjects with IQ's less than 60 and other retarded subjects who were over 18 years of age showed significant progress.—M. W. Kuenzel (Children's Home, Cincinnati).

1348. Bromberg, W. Marihuana: a psychiatric study. *J. Amer. med. Ass.*, 1939, 113, 4-12.—W. J. Brogden (Wisconsin).

1349. Burk, W. Über Bewegungskoordination. Ein Mittel zur Entlarvung vorgetäuscher Gelenkversteifung. (Coordination of movements: a means of detecting simulated stiffening of joints.) *Med. Welt*, 1939, 496-497.—At the end of the examination, the malingerer makes no further movements with the healthy joint, while the pathological joint continues the original rhythm of the movements.—P. L. Krieger (Leipzig).

1350. Busscher, J. de. Paranoïa et homosexualité. (Paranoia and homosexuality.) *J. belge Neurol. Psychiat.*, 1939, 39, 691-706.—The case history is presented of a male patient who had been arrested for homosexual practices. An examination revealed the presence of pronounced paranoiac tendencies. On the basis of this case the author discusses in detail the relation between paranoia and homosexuality, as first postulated by Freud, and the mechanisms involved. A further incomplete history of a similar case is given.—H. Syz (Lifwynn Foundation).

1351. Coleman, S. M., & Last, S. L. A study of folie à deux. *J. ment. Sci.*, 1939, 85, 1212-1223.—Folie à deux (the sharing of a psychosis by two people) is discussed and case histories are presented. It is maintained that a number of contingencies must be available at the same time for the rare condition of folie à deux to occur. First, there must be an inducer, a paraphrenic holding a delusional scheme he is anxious to induce. Second, there must be close proximity, usually for a number of years, of a highly suggestible individual. Third, the inducer must represent authority. Finally, extreme poverty and economic distress, bringing dissatisfaction with reality, provides the background.—D. G. Ryans (Cooperative Test Service).

1352. Critchley, M. Neurological aspect of visual and auditory hallucinations. *Brit. med. J.*, 1939, 634-639.—A description is given of the hallucinations occurring during the course of various

neurological disorders and drug intoxications.—W. J. Brogden (Wisconsin).

1353. Curran, D. Headaches as an early symptom of nervous and mental disorder. *Brit. med. J.*, 1939, 717-720.—W. J. Brogden (Wisconsin).

1354. Dayton, N. A. Presidential address. Research workers, every one. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 22-32.—A plea was made for the universal bringing forth of the ideas, thoughts and "hunches" lying within the hearts of workers in the field of mental deficiency. Administrators were asked to encourage such research efforts.—M. W. Kuenzel (Children's Home, Cincinnati).

1355. Dillon, F. Neuroses among combatant troops in the great war. *Brit. med. J.*, 1939, 63-66.—W. J. Brogden (Wisconsin).

1356. Erickson, M. H., & Kubie, L. S. The permanent relief of an obsessional phobia by means of communications with an unsuspected dual personality. *Psychoanal. Quart.*, 1939, 8, 471-509.—The authors present a detailed systematic account of (1) the accidental discovery of a dual personality in a quiet, reserved, well-poised college girl, (2) a slow, difficult and extremely painful uncovering, by written communications with this second personality, of a traumatic childhood experience long forgotten by the ordinary personality, and (3) the complete and permanent relief of a secret obsessional phobia suffered by the girl in direct relationship to this forgotten traumatic experience. The intricate steps by which this material was uncovered, the numerous unconscious measures of disguise and concealment in the form of symbolism, condensations, and various forms of everyday psychopathology, the series of acute and, until the last, inexplicable anxiety states, and the remarkable interplay of the two distinct personalities are all illustrated in detail. In discussion the authors place particular emphasis upon the relationship of the findings made to those of psychoanalysis, and stress is placed upon the confirmatory values of this type of work in relationship to psychoanalytic theory. A 10-item bibliography is appended.—M. H. Erickson (Eloise Hospital).

1357. Finesinger, J. E. Effect of pleasant and unpleasant ideas on respiration in psychoneurotic patients. *Arch. Neurol. Psychiat.*, Chicago, 1939, 42, 425-490.—W. J. Brogden (Wisconsin).

1358. Foster, R., Brown, A. W., & Bronstein, I. P. The mental development of a group of dwarfish children. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 143-153.—Serious problems in personality adjustment result from the smallness of stature of children. Description is given of a dozen cases showing marked stunting in physical growth. Marked mental retardation was associated with thyroid deficiency, but not with pituitary deficiency or with those whose physical growth was stunted by illness or due to bone anomalies.—M. W. Kuenzel (Children's Home, Cincinnati).

1359. Freeman, H. Skin and body temperatures of schizophrenic and normal subjects under varying

environmental conditions. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 724-727.—Skin and rectal temperatures were measured by means of thermocouples on schizophrenic and normal subjects while they were exposed to varying environmental conditions, in the nude and under fasting conditions. Exposure to cold conditions resulted consistently in greater cooling of the skin in the schizophrenics than in the normals. Exposure to warm conditions resulted in no difference in the response of normal and schizophrenic subjects. Exposure to high humidity at high and low temperatures showed no difference in the response of the two groups. The rectal temperatures of each group reacted similarly to each of the various conditions. The greater reactivity of schizophrenic subjects to cold conditions implies a vasoconstrictor tone.—*W. J. Brogden* (Wisconsin).

1360. **French, T. M.** Psychogenic factors in asthma. *Amer. J. Psychiat.*, 1939, 96, 87-101.—It is "found that the acute asthma attack occurs in place of a repressed cry in reaction to a temptation that threatens the patient with loss of the mother's love." The temptation, in the instances cited, is a sexual one.—*R. Goldman* (Boston Psychopathic Hospital).

1361. **Fromm-Reichmann, F.** Transference problems in schizophrenics. *Psychoanal. Quart.*, 1939, 8, 412-426.—The author discusses the various problems to be met in developing transference reactions in schizophrenic patients, citing specific illustrative examples. The decisive factor in transference development is found to be always a sympathetic understanding and manipulation of the relationships between the patient and physician rather than intellectual comprehension, and particular stress is placed upon the need of the schizophrenic patient to be cured of his wounds and frustrations before he can be taught to accept reality. The author concludes that schizophrenic patients are fully capable of developing workable relationships and transference reactions, and that successful psychotherapy with them depends upon understanding and meeting adequately various transference phenomena. A 37-item bibliography is appended.—*M. H. Erickson* (Eloise Hospital).

1362. **Galdo, L.** Psicologia ed oncologia. (Psychology and the study of tumors.) *Rif. med.*, 1938, 54. Pp. 12.—*R. Ricci* (Rome).

1363. **Gardner, G. E.** Prepsychotic measurements of physical and mental growth in a case of juvenile dementia paralytica. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 121-126.—Measurements of physical and mental growth of a child were obtained yearly over a period of 6 years prior to diagnosis, institutionalization, and treatment in a case of juvenile dementia paralytica. The patient, essentially normal in development at the 8th and 9th year levels, showed definite retardation in physical growth and intellectual capacity at 10 years of age, when he first failed seriously in school progress. During the next 3 years, prior to his hospitalization

at 15, growth was virtually absent, and his learning capacity fell to the imbecile level. Antisyphilitic treatment since that time seems to have had a beneficial effect on physical growth, but the mental retardation and behavior are unchanged.—*W. J. Brogden* (Wisconsin).

1364. **Geleperin, J.** Spontaneous remissions in schizophrenia. *J. Amer. med. Ass.*, 1939, 112, 2393-2395.—Spontaneous remissions among cases of schizophrenia admitted to the psychiatric service of the Cincinnati General Hospital over a 5-year period occurred with a frequency which compares favorably with the remissions obtained from shock therapy of schizophrenia.—*W. J. Brogden* (Wisconsin).

1365. **Gordon, R. G., Roberts, J. A. F., & Griffiths, R.** Does poliomyelitis affect intellectual capacity? *Brit. med. J.*, 1939, 803-805.—From a study of 98 cases it is concluded that an attack of poliomyelitis does not depress the level of general intelligence as tested by the Stanford-Binet scale.—*W. J. Brogden* (Wisconsin).

1366. **Graeve, H. E.** The musical program in an institution. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 228-233.—Music is an important phase in the education of mentally defective boys and girls. Such training in an institution begins with a rhythm band for the kindergartners, whose IQ's lie in the 40's and 50's. Advanced work is given in the violin classes, the chorus, and the bands. Ages of members in the present senior band range between 16 and 66 and the IQ's of its 17 members range between 51 and 82. Concert numbers like the "Atlantis Suite" by Sanfrank are played. Musical activities are found not only to enrich the social and cultural life of the institution, but "they aid tremendously in the mental and social development of the individual."—*M. W. Kuensel* (Children's Home, Cincinnati).

1367. **Hallervorden, J.** Kreislaufstörungen in der Ätiologie des angeborenen Schwachsinn. (Circulatory disturbances in the etiology of hereditary feeble-mindedness.) *Zbl. ges. Neurol. Psychiat.*, 1939, 94, 341.—Brain injuries responsible for congenital feeble-mindedness often can be traced to circulatory diseases in early infancy. Functional demands on circulation in birth injuries, toxic or infectious processes, digestive disorders, and epileptic seizures have significant effects.—*P. L. Krieger* (Leipzig).

1368. **Hauke, —.** Ein graphischer Exhibitionist. (A graphic exhibitionist.) *Kriminalistik*, 1939, 13, 222-223.—A 41-year-old artist was arrested after 10 years' activity for scattering obscene drawings, with verses attached, on the street. He obtained sexual satisfaction from the idea that these would be picked up by women. He also sent similar productions to girls who advertised in the newspapers for positions, or had won "contests." The drawings were reproduced with tracing paper and the verses mimeographed. Their sole theme was female autoerotism. He made no effort to get in contact with the recipients. He had been overstimulated but not

satisfied in his marital relations, and had resorted to autoerotism.—*M. E. Morse* (Baltimore).

1369. **Haworth, N. A.** *Malnutrition and debility in puerperal psychoses.* *Lancet*, 1939, 237, 417-418.—*W. J. Brogden* (Wisconsin).

1370. **Hayman, M.** *The interrelations of mental defect and mental disorder.* *J. ment. Sci.*, 1939, 85, 1183-1193.—A short historical review of the literature on psychotic reactions in mental defectives is presented and various classifications and approaches are described. "Psychosis with mental deficiency" is not a clinical entity; it includes a wide variety of disorders. 50 cases are classified according to reaction type and to mental age. The results suggest a graded series of reactions, the complexity of which varies with intellectual level.—*D. G. Ryans* (Co-operative Test Service).

1371. **Hendrick, I.** *The contributions of psychoanalysis to the study of psychoses.* *J. Amer. med. Ass.*, 1939, 113, 918-924.—*W. J. Brogden* (Wisconsin).

1372. **Heuyer, M. G.** *Diagnostic des troubles psychiques déterminés par l'encéphalite épidémique chez l'enfant à l'âge scolaire.* (Diagnosis of the psychological disturbances caused by encephalitis in school children.) *Groupe ment. franç. Etud. Neuro-Psychopath. infant.*, 1939, 2, No. 3, 53-61.—Four different forms of encephalitis are distinguished: hypomaniac, epileptoid, obsessive, and perverse. There are sometimes profound alterations in the level of intelligence, but those of character are constant; they are lasting and make school life and social life very difficult, if not impossible; they are responsible for most of the patient's delinquencies, either at the time or later on as an adult; remedies have no effect upon them. The diagnosis is not easy, especially in adolescents, in whom the symptoms closely resemble those of dementia praecox, but the only reliable signs are trembling of the muscle fibers of the tongue and abnormal presence of sugar in the cerebrospinal fluid.—*C. Nony* (Sorbonne).

1373. **Hirschfeld, M.** *Sexual pathology.* (Rev. ed.) New York: Emerson, 1940. Pp. 368. \$2.95.—A descriptive account of cases observed, diagnoses made, and treatment prescribed during the course of the author's practice. Part I, Sexual Symbolism, is an account of fetishism for parts of the body or for clothing or some other inanimate object. Parts II, Hypereroticism, and III, Impotence, deal with abnormal strength and weakness respectively of sexual desires and capacities. Hypereroticism involves an excess of sexual activity aroused by a single individual (superfixation) or by any individual of a given type (polyeroticism). The activity may involve either an unusual frequency of normal relations or a perversion of the normal relation (hypererotic deviation). Cases of impotence are classified according to locus of deficiency, as cerebral, spinal, genital, and germinal. Methods of therapy are suggested.—*L. A. Riggs* (Vermont).

1374. **Horney, K.** *What is a neurosis?* *Amer. J. Sociol.*, 1939, 45, 426-432.—The need to define a

neurosis has developed only recently with the realization that psychic disturbances need not consist only of gross malfunctions, as was held in the latter part of the 19th century, but may consist of character trends of a particular nature, the sum total of which interferes with the individual's happiness. The impression of two kinds of neuroses—symptom neuroses and character neuroses—which resulted from this new conception is again misleading, for every neurosis is essentially a character disorder. This view introduces social viewpoints into a field claimed by medical psychiatry. From a social standpoint a neurosis can be defined as a deviation from the "normal" in the sense of the statistically average in a given culture. From a clinical viewpoint neuroses may be regarded as an attempt to cope with life under difficult internal conditions which revolve about a basic anxiety toward life in general. An attempt to bridge the difference between the socially oriented definition of neurosis and that which is clinically oriented would describe a neurosis as a deviation from the average, but add that the deviation does not primarily concern the manifest behavior but the quantity or quality of basic anxiety as well as that of the deviation developed for the sake of security.—*D. L. Glick* (Brown).

1375. **Humphreys, E. J., & McBee, M.** *Present needs in the care of mental defectives in New York City.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 264-273.—"The data include analyses of 436 cases on the waiting lists of the Department of Hospitals, 532 cases of the Department of Public Welfare—Children's Division, 385 cases from the Court of Domestic Relations, and material from the Board of Education—Bureau for Children with Retarded Mental Development. The findings indicate (1) the need of a broader program in the care of the defectives, integrating more closely the psychiatric, psychological, social work, and educational planning of state and community institutions dealing with mental defectives; (2) the lack of provision for the borderline defective in both state and community programs of control; (3) the fact that responsibility for care and supervision of the borderline defective delinquents has not been clearly defined. Certain recommendations are made."—*M. W. Kuensel* (Children's Home).

1376. **Ingram, M. E.** *Principles of psychiatric nursing.* Philadelphia: Saunders, 1939. Pp. xvii + 428. \$2.50.—This volume, which is designed for student nurses, discusses from the nursing point of view the care of those who are mentally ill. The text is divided into four units. Unit I includes a summary of the history and development of mental nursing. In Unit II the various nursing procedures and techniques employed in psychiatric nursing are described in detail, with special emphasis on the needs of the patient as an individual. Unit III deals with the signs and symptoms occurring in mental conditions and the purpose and technique of present-day therapeutic methods. Unit IV covers extramural situations and includes a chapter on mental hygiene. Summary outlines, questions, and sug-

gested references are included at the end of each chapter. An index is appended.—*M. Keller* (Yale).

1377. **James, S. G.** *The relationship of dementia praecox to mental deficiency.* *J. ment. Sci.*, 1939, **85**, 1194-1211.—A close relationship between primary mental deficiency and one of the primary psychoses, dementia praecox, is suggested by results presented. 11% of 2382 mental defectives showed definite signs of psychoses, and of the psychoses 75% were found to be dementia praecox. Similarity between primary mental deficiency and dementia praecox from the clinical, the pathological, the psychological, and the causal points of view is indicated.—*D. G. Ryans* (Cooperative Test Service).

1378. **Jelliffe, S. E.** *Sketches in psychosomatic medicine.* *Nerv. ment. Dis. Monogr.*, 1939, No. 65. Pp. v + 155. \$3.00.—This monograph constitutes a collection of 10 previously published articles which illustrate and clarify the applications and significances of psychosomatic principles and concepts in various medical problems. Individual titles are "What Price Healing?", "Psychopathology and Organic Disease," "The Death Instinct in Pathology," "Dupuytren's Contracture," "The Psyche and the Vegetative Nervous System," "The Bodily Organs and Psychopathology," "The Skin, Nervous System and the Bath," "Neuropathology of Bone Disease," "Psychoanalysis and Myopia," "The Ecological Principle in Medicine." Separate bibliographies for the articles and a general index of the book are given.—*M. H. Erickson* (Eloise Hospital).

1379. **Keiser, F. L., & Halperin, S. L.** *A preliminary report on genetical aspects of mental deficiency.* *Proc. Amer. Ass. ment. Def.*, 1939, **44**, No. 1, 41-46.—Preliminary report is given of a proposed study to analyze the factors involved in mental deficiency. Possible sex and autosomal linkage relationships are to be sought and the effects of assortative mating and inter-familial environmental differences studied. Two verbal tests and two non-verbal tests have already been administered to 76 children in 23 sibships. Covariance analysis of the data is summarized in three statistical tables. Limited explanation of results is offered.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1380. **Kephart, N. C.** *The effect of a highly specialized program upon the IQ in high-grade mentally deficient boys.* *Proc. Amer. Ass. ment. Def.*, 1939, **44**, No. 1, 216-221.—Departing from customary methods of training, where external productivity is more important than internal changes which might take place, this specialized program aimed at the individual's own development of means toward ends. Constructive activity was stimulated and social approval directed toward recognition of productions, both concrete and abstract, which showed ingenuity, initiative, and original planning. In social relations individuals were required to work out their own problems. Where help was required suggestion and discussion were preferred. During informal settings abstract problems were presented for solution in order to provide experience

in recognition of absurd and illogical statements. This cottage group consisted of 16 boys, aged 15 to 18 years, whose IQ's ranged from 48 to 80. An average gain in IQ of 10 points was made within a year. 81% of the cases showed a gain of 5 or more points. The gain is shown to be specific to the experimental group and does not hold in other institutional groups or control cases.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1381. **Kinder, E. F., & Abel, T. M.** *A comparative study of institutionalized and non-institutionalized subnormal girls.* *Proc. Amer. Ass. ment. Def.*, 1939, **44**, No. 1, 169-177.—Attitudes, ambitions, and modes of adjustment were investigated in two comparable groups of subnormal, adolescent girls, who have lived over a period of years in two widely different environmental settings, the one a metropolitan community setting, the other an institution for defectives. Attitudes toward authority, toward contemporaries, and toward work are described. Wide individual variations were noted within each group. Environmental factors which stand out most clearly in the case of the metropolitan girls are: a relatively stable family group in which the girl has an established position and a definite drive toward socio-economic self-expression. The institutional girls had a similar drive, but it is said to be cast within a framework that is largely inapplicable to an extra-institutional environment.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1382. **Kirk, S. A.** *A reading program for mentally retarded children.* *J. except. Child.*, 1939, **6**, 49-54.—Since mentally retarded children are not ready to read when they enter school, they should be given a prolonged pre-reading period, continuing up to 8 to 11 years of age, depending upon intelligence. During this period emphasis should be placed upon developing language ability, training memory and enunciation, and developing eagerness to learn to read. Techniques are suggested for these objectives. A modification of the conventional experience method should be followed when the child begins to read, and care should be exercised that there be more repetitions and slower progress than in the case of normals. Efficiency in reading should involve the teaching of independent methods of word recognition, the prolongation of the period of oral reading, the provision of properly selected materials, and insistence upon good comprehension.—*L. A. Averill* (Worcester Teachers College).

1383. **Kuenzel, M. W.** *Social status of foster families engaged in community care and training of mentally deficient children.* *Proc. Amer. Ass. ment. Def.*, 1939, **44**, No. 1, 244-253.—The Minnesota home status index was used to evaluate the social standing of 42 boarding homes of feeble-minded children. Measurements show that the majority, or 83%, are of average social status. 3% are of superior status and 14% of inferior status. Urban homes scored slightly below the midpoint of the average group and the homes of farmers are of inferior-average status according to these urban

standards. The social level of Negro foster parents is the same as that of white foster parents. Past experience indicated that satisfactory adjustments of feeble-minded children were more apt to be achieved when children lived in foster homes of low-average status than when placed in superior homes. The present investigation shows that homes now effecting such adjustments rank at this level.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1384. **Langfeldt, G.** *The schizophreniform states: a katamnestic study based on individual reexamination.* London: Oxford Univ. Press, 1939. Pp. 134.—Through a personal reexamination of 100 discharged patients who were admitted to the Oslo Psychiatric Clinic as doubtful schizophrenics, Langfeldt attempted to show that a finer diagnostic sifting of this material is necessary for its successful treatment. He sought to establish (1) the prepsychotic factors which characterize this group, (2) the ways in which the psychoses developed, (3) the duration of the psychoses before admission to the institution, (4) the relation between the duration before admission and the future course of the disorder, (5) the atypical conditions, and (6) their influence on future development. These facts are presented in numerous tables and are illustrated by case histories. The study discloses that the typical schizophrenias and the schizophreniform states (atypical) are fundamentally different in their prognosis. About two thirds of the latter are, he finds, cured spontaneously within the first year after discharge from the clinic; moreover, they are permanently cured. Langfeldt believes that shock therapy must be judged according to whether the cases are typical or atypical. He holds that the bulk of his cured cases present a symptomatology of a schizophreniform character similar in phenomenology to the type of case which reacts favorably to cardiazol and insulin treatment.—*R. M. Lindner* (U. S. Penitentiary, Lewisburg, Pa.)

1385. **Ljungberg, E.** *Elektrokardiographie bei Geisteskrankheiten.* (Electrocardiography with mental patients.) *Zbl. ges. Neurol. Psychiat.*, 1939, 94, 342.—There is a relation between the mental symptoms as manifestations of conditions of the central nervous system and disturbances of cardiac functions.—*P. L. Krieger* (Leipzig).

1386. **McCowan, P. K.** *The significance of auditory and visual hallucinations.* *Brit. med. J.*, 1939, 631-634.—*W. J. Brogden* (Wisconsin).

1387. **Meixner, F.** *Der Brillenräuber.* (The glasses thief.) *Kriminalistik*, 1939, 13, 223-224.—A unique case of fetishism with sadistic elements. During the course of two years, a 40-year-old man repeatedly lay in wait at night on quiet streets for young women wearing glasses, which he would snatch off and carry away, if they were not broken. He would later throw them into the fire, or lay them on the street-car track, and was filled with satisfaction as he heard them ground under the wheels. He confessed that he was always especially drawn

to women wearing glasses, but if they were indifferent to him he became sexually excited and felt impelled to tear off their glasses, which act relieved the tension. All the members of his family, both men and women, wore glasses.—*M. E. Morse* (Baltimore).

1388. **Melcher, R. T.** *A program of prolonged pre-academic training for the young mentally handicapped child.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 202-215.—In an experimental educational unit set up for boys under 12 years of age who are of moron or borderline mentality and whose educational ages are less than 2 years below their mental ages, the school program relieves these children from all necessity to learn academic subjects, although it provides opportunity for incidental learning of this character. A comprehensive testing program is used in this project, covering general mental, educational, social, and personality development. Results to date indicate that children who have been promoted from this unit to classes in the regular school are progressing at a rate better than average for normal children beginning academic work. IQ's of this experimental group also are advancing more rapidly than those of a control group.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1389. **Myerson, A.** *The relationship of hereditary factors to mental processes.* *Res. Publ. Ass. nerv. ment. Dis.*, 1939, 19, 16-49.—Recent investigations of similarities and differences among twins and foster children are critically reviewed. It is concluded that the basic mental capacities, on the whole, seem to be innate, but modified, evoked, developed, and destroyed by environmental agencies. Least dependent upon environmental factors is feeble-mindedness; increasingly more dependent are manic-depressive psychosis, schizophrenia, epilepsy, and criminality. Many conditions which are now regarded as hereditary might better be classed as constitutional, with the understanding that constitution is profoundly influenced by environmental agents.—*D. G. Marquis* (Yale).

1390. **Nagata, G.** *Iwayuru niryûka tanso seishinbyô no kenkyû. 2. Kioku shôgai ni kansuru jikken.* (Researches on the so-called CS₂ psychosis. 2. Experiments on memory disturbance in the patients.) *Kyoto Igak. Z.*, 1939, 36, 441-452.—Memory disturbance in CS₂ psychosis which broke out in a silk factory is in its type very similar to that of alcoholic patients, and differs decidedly from that of dementia, mania, and schizophrenic patients.—*R. Kuroda* (Keijo).

1391. **Nagata, G.** *Iwayuru niryûka tanso seishinbyô no kenkyû. 3. Seishin sagyô nôryoku ni kansuru jikken.* (Researches on the so-called CS₂ psychosis. 3. Experiments on the ability to do mental work.) *Kyoto Igak. Z.*, 1939, 36, 453-468.—Ability to do mental work in the CS₂ psychotic patients was measured by Specht's method. In those who show decided symptoms little effect of practice, rest, and excitation is found, but recovery of mental ability appears with recovery from illness.

Mental work in dementia praecox patients was taken as a control.—*R. Kuroda* (Keijo).

1392. Nagata, G. Iwayuru niryûka tanso seishinbyô no kenkyû. 11. Iwayuru niryûka tanso seishinbyôsha no kenkôji ni okeru seikaku no kenkyû. (Researches on the so-called CS₂ psychosis. 11. On the character of the so-called CS₂ psychotic patients in their normal state.) *Kyoto Igak. Z.*, 1939, 36, 587-602.—63 cycloids (63%), 28 schizoids (28%), and 9 persons whose types are uncertain (9%) were found among 100 so-called CS₂ psychotic patients appearing in a silk factory when classified according to Kretschmer's scheme. It was found that men of cycloid type are more sensitive to CS₂ than those of schizoid type, and the relation between physical constitution and character corresponds essentially to Kretschmer's hypothesis.—*R. Kuroda* (Keijo).

1393. Neumann, J. Leven zonder angst; psychologie en psychotherapie van den modernen mensch. (Life without anxiety; psychology and psychotherapy of the modern man.) (Trans. by A. Aalderink.) Amsterdam: Kosmos-uitgeversmaatschappij, 1939. Pp. 175. F2.90.

1394. Newland, T. E. A study of uneducable children excluded from Pennsylvania public schools. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 187-196.—The median Binet IQ of 249 excludées was 41, with a median mental age of 4 years 10 months on the Terman-Merrill Binet and 4 years 3 months on the Stanford Revision. Excludées included boys and girls in the ratio of 3 : 2. They were found in all 8 grades of the public schools and in kindergarten. Higher frequencies occurred at the 8- and 14-year age levels. Physically they were inferior, and their economic condition was also inferior to that of the general population.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1395. Oguchi, T. Seishin jôtai ga san enki heikô ni oyobosu eikyô ni kansuru kenkyû. 1. Keimusho shûyô jokeisha no seishin jôtai to ketsueki chû tansan gasu gan'yûryô no shôchô ni kansuru kansatsu. (Researches on the effect of mental states upon the acid-base equilibrium. 1. Observations on the relation between mental states of prisoners and the change of carbonic acid gas content in the blood.) *Nisshin Igaku*, 1939, 28, 971-986.—Prisoners were selected as subjects because they are in the same environmental conditions, taking the same food, and engaging in the same work. Van Slyke's apparatus for measuring carbonic acid gas content in the blood was used. Results gained made the author conclude that the prisoners show great differences in their carbonic acid gas content in the blood, notwithstanding that they live in almost the same environmental situations. Those who have mental distress show in general acidosis, while those who are tranquil in mind show alkalosis; their grade corresponds to the degree of mental disturbance. It is possible and of utmost importance to infer prisoners' mentation on the basis of their carbonic acid gas content in the blood.—*R. Kuroda* (Keijo).

1396. Oguchi, T. Seishin jôtai ga san enki heikô ni oyobosu eikyô ni kansuru kenkyû. 2. Jûshô kanja no byôshô keika no hendô to tsukisoe kangonin no ketsueki chû tansan gasu gan'yûryô no shôchô ni kansuru kansatsu. (Researches on the effect of mental states upon the acid-base equilibrium. 2. Observations on the relation between the progress of a serious illness and the carbonic acid gas content in the blood.) *Nisshin Igaku*, 1939, 28, 987-995.—Those who are uneasy and sad show acidosis in the blood, but those who are serene and cheerful show alkalosis. Those who are uneasy for some time and show acidosis in the blood come to a state of alkalosis when the uneasiness is over.—*R. Kuroda* (Keijo).

1397. Pegge, G. Notes on psychiatric casualties of the first days of the war. *Brit. med. J.*, 1939, 704-765.—*W. J. Brogden* (Wisconsin).

1398. Penrose, L. S. Research into the causes of mental deficiency. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 33-40.—Causation of mental deficiency is approached from the biological point of view. The author cites many interesting results that accumulated during his 8 years of investigation. He selected cases by clinical signs and then probed into causes by family investigation. He applied the consanguinity method for identifying recessive characters; difficulty was experienced in obtaining perfect examples of Mendelian dominance. He kept in mind the likelihood that the same factor which in the carrier produces only mild defect may, when doubled, cause severe recessive defect. He disagrees with the idea that the germ plasm of certain human stocks deteriorates progressively, finally producing idiocy in the offspring, but rather assumes that partially dominant genes which can cause mental or physical abnormality in parents are sometimes cumulative in their effects on children. In the case of high-grade morons some genetic factors impairing the intellect seemingly are dominant. Diseases eluding simple genetical analysis so far include mongolism, anencephaly, hydrocephaly and some types of microcephaly. A bibliography of 23 titles is appended.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1399. Petrén, A. Om organisationsarbetet inom sinnesslövrården och dennas utveckling under min senaste inspektionsperiod. (The reorganization work in the care of feeble-minded and developments during my latest inspection period.) *Soc.-med. Tidskr.*, 1939, 16, 153-158; 177-182.—A detailed progress report covering 1933-38 in regard to new institutions, work homes, etc., for the feeble-minded in Sweden, which have brought about increasing possibilities for differentiation of the various classifications of patients.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1400. Petrén, A. Om gränserna mellan sinnesslövrård och sinnessjukvård. (Concerning the lines of demarcation between care of the feeble-minded and care of the insane.) *Svenska Läkartidn.*, 1939, 36, 1801-1824.—A general discussion with special

reference (based on case histories) to the frequent incorrect diagnosis and differentiation between schizophrenia and the various levels of feeble-mindedness, and also to correct placements in Swedish institutions.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1401. Petrescu, C., Strejac, L., & Constantinescu, G. G. *Anchetele la domiciliul bolnavilor internați in spitalele de boli mintale si nervoase.* (Visits to the homes of patients in hospitals for mental and nervous diseases.) *Bul. Soc. Psihol. med. Sibiu*, 1939, 6, 47-50.—The homes of 179 insane people were visited by psychiatrists. The observations made seem very valuable for both diagnosis and therapy of mental diseases.—*N. Marginean* (Cluj, Rumania).

1402. Pojoga, N. *Cateva considerațiuni asupra notiunii centrului biopsihiatric.* (Some considerations concerning biopsychiatric centers.) *Bul. Soc. Psihol. med. Sibiu*, 1939, 6, 51-53.—Some practical suggestions concerning the organization of biopsychiatric centers in Rumania.—*N. Marginean* (Cluj, Rumania).

1403. Pollock, D. A. *4-H clubs for mental defectives.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 222-227.—This author describes how the work program and ideals of the 4-H club played an important role in the development, training, and rehabilitation of mentally defective girls living in an institution.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1404. Pollock, H. M. *The future of family care of mental patients.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 234-237.—Already the family-care movement is well under way here in America. New York State now has about 900 mental patients in foster-family care, Massachusetts has over 300, and the Province of Ontario has about 500. Prediction is made that in the not distant future there will be general use of family care to supplement institutional care in every state. Cost to the state is about half that of institutional care. For large scale family placement the system used at Gheel, Belgium, is preferred.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1405. Popescu-Sibiu, I. *Conceptia psihologica in clinica psihologica.* (Psychological concepts in psychological clinics.) *Bul. Soc. Psihol. med. Sibiu*, 1938, 6, 27-32.—Psychological clinics must use primarily psychological methods. A protest is made against the predominance of neurological interpretations of all mental diseases.—*N. Marginean* (Cluj, Rumania).

1406. Preda, G. *Organizarea unui centru biopsihiatric.* (The organization of a bio-psychiatric center.) *Bul. Soc. Psihol. med. Sibiu*, 1938, 6, 12-21.—A brief historical survey of Rumanian institutions for mental diseases is followed by practical hints and proposals concerning their improvement.—*N. Marginean* (Cluj, Rumania).

1407. Pyle, J. A. *Visceral neuroses.* *Lancet*, 1939, 237, 353-359.—*W. J. Brogden* (Wisconsin).

1408. Rădulescu-Motru, C. *Psihologia in serviciul medicinei.* (Psychology in the service of medicine.) *J. Psihoteh.*, 1939, 3, 57-62.—Psychology and medicine have been always connected; Hippocrates and Galen are significant examples. The connection has become stronger in our time since medical psychology as elaborated by Freud, Adler, and others has developed greatly. Psychology has proved to be very useful in both diagnosis and therapy of mental diseases, which require a knowledge of the personality of the insane. In regard to psychotherapy, which appears to be most important, one can distinguish between individual and social psychotherapy. In the first case the health of the individual is re-established by the influence of one individual; in the second case by the influence of the society. French summary.—*N. Marginean* (Cluj, Rumania).

1409. Ramsey, J. *Nervous disorder after head injury: a review of 400 cases.* *Brit. med. J.*, 1939, 385-390.—*W. J. Brogden* (Wisconsin).

1410. Rogerson, C. H. *Play therapy in childhood.* New York: Oxford Univ. Press, 1939. Pp. 66. \$1.25.—Following a historical summary, case material is given concerning the use of play therapy with a group of children who were patients in clinics for nervous or behavioral disorders. The chapter stating final conclusions includes sections entitled "Relationship with therapist," "Fantasies expressed in play," and "Reason for improvement." There is a bibliography of pertinent titles.—*F. W. Finger* (Brown).

1411. Rosca, A. *Igiena mintala profesionala.* (Occupational mental hygiene.) *Rev. Psihol.*, 1939, 2, 283-290.—The aim of occupational mental hygiene is to avoid the factors which determine occupational maladjustment and to effect a better relationship between the worker and his job. Vocational guidance is the most important way of avoiding maladjustment.—*N. Marginean* (Cluj, Rumania).

1412. Rosca, S., & Cupcea, S. *Rolul orientarii profesionale in centrul de igiena mintala.* (The role of vocational guidance in a center for mental hygiene.) *Bul. Soc. Psihol. med. Sibiu*, 1939, 6, 45-46.—A discussion of vocational guidance for patients in psychological clinics. It concerns (1) people suffering from mental disturbances determined by the occupation who need guidance toward another occupation; (2) people with various mental disturbances determined by other factors, but still able to make a living; and (3) people intending to participate in social work connected with psychological clinics.—*N. Marginean* (Cluj, Rumania).

1413. Rylander, G. *Lag och intelligensålder.* (Law and intelligence.) *Soc.-med. Tidskr.*, 1939, 16, 162-168.—The Swedish law lacks definition of feeble-mindedness, and physicians do not have any general understanding of this term, medically or legally, since all forms of mental retardation are included in the law. Generally a MA of 12 or under is taken as an excuse for release from punishment and also as a bar to marriage. The writer proposes the

definitions of feeble-mindedness as: idiocy, MA 0-5, IQ 0-30; imbecility, MA 5-12, IQ 30-75; debility, MA 12-14, IQ 75-88; these should correspond with Terman's classification of IQ 90-110 as the normal range.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1414. **Sanders, J., Schenk, V. W. D., & Van Veen, P.** A family with Pick's disease. *Verh. Akad. Wet. Amst.*, 1939, Sect. 2, Part 38, No. 3. Pp. 124.—A study based on information concerning 133 members and 5 generations of one family. Whenever possible the patients were examined neurologically, psychiatrically, and psychologically. General intelligence tests and the Rorschach method were used with 53 members of the family. 23 complete Rorschach records are reproduced and discussed; 4 of these were obtained from patients with Pick's disease (frontal lobe atrophy); brief descriptions of the remaining 30 Rorschachs are given. Whenever available, anatomical and histological findings are included. The family contains 10 certain cases of Pick's disease and 7 probable cases; the latter were not examined personally by the authors. The chapters of the monograph are as follows: heredity of Pick's disease; psychological family research; aphasia and mental decay; anatomical investigation; the cortex of the hemispheres; recapitulation; case histories. A selected bibliography completes the work.—*Z. Piotrowski* (Columbia).

1415. **Sargent, J., Uhl, A. N., & Moreno, J. L.** Normal and abnormal characteristics of performance patterns, with special reference to the duration of spontaneous states. *Sociometry*, 1939, 2, No. 4, 38-57.—The "primitive" performance of eating has many of the characteristics of a psychodramatic performance, particularly in its dynamic temporal characteristics. The total times for eating uniform main courses of the mid-day meal were studied in a series of 4 patients (whose characteristics are described) and in a group of normal subjects. The timing and observation were concealed, and the patients were deteriorated to a degree where their performances were quite fixed, and not altered by changes in the social situation. Studies of the trend of the entire performance duration (compared with a statistical norm) as well as of its detailed characteristics (timing of acts and pauses) showed that each individual had a characteristic pattern "which offers significant clues to his general condition . . . [enabling] the physicians and nurses to diagnose the present condition of the patient and to foresee and predict certain specific changes in his conduct." Such a technique will be useful especially with uncommunicative patients, and is illuminating for the study of the "warming up" process in general.—*L. J. Stone* (Vassar).

1416. **Schaller, W. F.** After-effects of head injury. *J. Amer. med. Ass.*, 1939, 113, 1779-1785.—*W. J. Brogden* (Wisconsin).

1417. **Schedtler, O.** Über den Seelenzustand der Tuberkulösen. (The mental condition of tuberculous patients.) *Med. Klinik*, 1939, Pt. 1, 101-103.—

Tuberculosis does not develop a special mental condition, but as a result of the monotonous life in a sanatorium the pre-morbid personality is uncovered and displays in all of its force the patients' frivolousness, belligerency, selfishness, or lack of emotionality. The same factor is responsible for often irrepressible eroticism, though the sex drive is not intensified. Positive character traits also may be developed, such as a desire for mental activity, productivity, and integration. Very rarely is the patient resignedly apathetic.—*P. L. Krieger* (Leipzig).

1418. **Schreiber, F.** Mental deficiency from paranatal asphyxia. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 95-106.—"Examination of the paranatal records of mentally defective infants and children (for whom there was no history of inherited defect, infection, or trauma unassociated with birth) has disclosed a definite relationship between fetal oxygen want and the later neurological defect." In a group of 252 children whose mental deficiency was thought due to conditions at birth, 176 (70%) were found to have a history of asphyxia. The commonest presenting symptom of cerebral cell disintegration as a result of destructive anoxia is described as a deterioration of intellect, evidenced mainly by character change and memory defect. Several figures show sections of cortex from infants delivered after long labor, illustrating degenerative cellular changes. The interrelationship between different type mechanisms by which infant brain tissue may be deprived of oxygen with resultant cell necrosis and later evidence of mental deficiency are described. Classification of these types of anoxia follow: anoxic, anemic, stagnant, and histotoxic. The author urges a re-evaluation of the controllable factors inducing asphyxia, among which are the optional drug and anesthetic agents used to produce analgesia and amnesia in the mother. A bibliography of 18 titles completes the article.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1419. **Schröder, H.** [The kinship of mongoloid idiots.] *Z. ges. Neurol. Psychiat.*, 1939, 164, 286-310.

1420. **Schultze, M.** Über Zeichnen und Malen als experimentell-psychologische Hilfe in der Psychotherapie. (Drawing and painting as experimental aids in psychotherapy.) *Zbl. ges. Neurol. Psychiat.*, 1938, 87, 704.—Abstract. In the case of a schizothymic female neurotic, automatic drawing was substituted for the association method. Interpretation of the symbols proved to be an effective means of analysis and therapy.—*P. L. Krieger* (Leipzig).

1421. **Sirkin, J.** A critical analysis of five years' work with cases of cerebral palsy. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 107-113.—Of the 48 cases of cerebral palsy given treatment in one of the New York State institutions for the feeble-minded slightly more than one third have shown improvement. The Binet IQ range of these patients was 29 to 71. Improvement occurred in walking, feeding, and dressing. IQ's following treatment ranged from 30 to 72. However, in treatment by physical therapy it is not the degree of the child's

intelligence but his degree of cooperation and initiative that counts.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1422. **Skeels, H. M., & Dye, H. B.** A study of the effects of differential stimulation on mentally retarded children. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 114-136.—Study was made of the effect on mental growth of young children of a radical shift from one institutional environment to another providing superior stimulation. "The experimental group included 13 mentally retarded orphanage children (mean IQ 64, Kuhlmann) from one to two years of age, placed singly or by twos on wards with brighter older girls in a school for the feeble-minded. This environment was stimulating, with many adult contacts provided. As a contrast group, 12 average and dull normal children (mean IQ 87, Kuhlmann) of similar ages in an orphanage nursery were studied. Few adult contacts were afforded, with limited opportunities for play and development. Retests of both groups after two years showed marked gains in intelligence (mean IQ 92) for the experimental group and marked losses (mean IQ 60.5) for the contrast group." The author points out that "the possibility of increasing the mental capacity of 'functionally' feeble-minded children should be considered as an essential objective in setting up an individualized treatment and educational program in a school for feeble-minded."—*M. W. Kuenzel* (Children's Home, Cincinnati).

1423. **Specht, G.** Über den vitalen Faktor im manischen Krankheitszustand. (The vital factor in the manic condition.) *Allg. Z. Psychiat.*, 1939, 110, 1-10.—In many cases the increased vitality which is a primary condition of mania is diagnosed erroneously as alcoholism or belligerency. Heightened vitality seems to have a favorable effect on the general psychic condition and mental deterioration in many types of mixed psychoses.—*P. L. Krieger* (Leipzig).

1424. **Stalker, H.** The prognosis in schizophrenia. *J. ment. Sci.*, 1939, 85, 1224-1240.—A follow-up study of 129 first admissions for schizophrenia and a review of 3551 cases reported in the literature are presented. In each group 12% showed relatively complete recovery. In the follow-up group 71% were either unimproved or had relapsed after remission. Of the 3551 cases reviewed, 69% were reported either unimproved or "remitted and relapsed." The following features appear to be of favorable prognostic import: (1) healthy reaction habits in previous life; (2) a preponderance of environmental and psychogenic causes for the illness over organic factors; (3) acute and recent onset of the illness; (4) well-retained affective response in the illness, with absence of disharmony between affect and thought content; and (5) an acute type of schizophrenia, which cannot be fitted into any of the four standard sub-groups. Some features which had no prognostic import were: (1) family history of mental disorder; (2) patient's sex; (3) patient's educational attainment; (4) age of patient at onset

of illness; and others.—*D. G. Ryans* (Cooperative Test Service).

1425. **Stefanescu-Goanga, F.** Clinica psihologica. (The psychological clinic.) *Bul. Soc. Psihol. med. Sibiu*, 1938, 6, 4-7.—A general survey of psychological clinics, followed by practical propositions concerning the organization of clinics in Rumania. The clinic should have three services: psychological, social, and medical. The main forms of psychological service are: intelligence examinations, emotional instability, interests, abilities, and various other personality traits. The psychiatrist is concerned with diagnosis and therapy. The social work concerns the sociologist.—*N. Marginean* (Cluj, Rumania).

1426. **Stern, K.** Severe dementia associated with bilateral symmetrical degeneration of the thalamus. *Brain*, 1939, 62, 157-171.—Report of a case of severe presenile dementia accompanied by loss of pupillary reflexes and forced sucking and grasping movements; histological examination revealed a selective bilateral symmetrical degeneration of the thalamus with exclusion of the ventral nucleus, arcuate nucleus, the mid-line nuclei, and the lateral and medial geniculate bodies. The symptomatology of the case is discussed on the basis of recent discoveries in the field of thalamo-cortical relations.—*W. J. Brogden* (Wisconsin).

1427. **Strauss, A. A.** Typology in mental deficiency. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 85-90.—Exogenous and endogenous types of mental deficiency are defined in terms of their clinical and psychological structure. Results of several investigations dealing with psychophysical differences between them are cited. The investigations suggest that "these two clinical types differ in the integration of mental and corporal growth, in rate of mental growth and the influence of environmental change upon this rate, in the performance test pattern, and in behavior." Differences are summarized in a table. Implications for special education, particularly for the exogenous type of child, are made. In this type perseveration and organic distractibility of attention occur. These children are more erratic, disinhibited, unstable, and uncontrolled than the endogenous child. Structuralization of perceptual materials should be emphasized in their teaching, that is, parts must be dovetailed into the whole.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1428. **Strauss, A. A., & Kephart, N. C.** Rate of mental growth in a constant environment among higher grade moron and borderline children. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 137-142.—The IQ variation of various special clinical types of cases is compared with variation shown by a group of undifferentiated cases. Retest records of 292 retarded children unselected from the point of view of IQ variation were classified according to whether the children belonged to the following clinical types: endogenous, mixed, exogenous, psychopathic, and neglected. Age at time of the initial test averaged 13 years, and mean test-retest interval averaged 4.7

years. The endogenous and psychopathic groups showed a predominance of increasing IQ's, while the exogenous group showed a large incidence of decreasing IQ's, with the mixed type falling between the endogenous and the exogenous. Consideration should be given this fact when investigating the effect of the environment on the IQ.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1429. **Stumpff, F.** *Psychopathenforschung unter dem Gesichtspunkt der Erbbiologie 1937-1939.* (Research on psychopathy from the standpoint of biological inheritance, 1937-1939.) *Fortschr. Neurol. Psychiat.*, 1939, 11, 409-416.—Recent publications on characteristics of criminals, epileptics, schizophrenics and the feeble-minded and their descendants are herein discussed. The author includes only those studies of psychopathy which have reference to heredity, and has eliminated all which do not use the family or twin method, as well as those in which the population is not comparable racially with the German population. Hooton's *The American Criminal* is cited briefly, though the author considers that it lacks material which can strictly be included under the heading of psychopathy. Bibliography.—*D. S. Oberlin* (Delaware State Hospital).

1430. **Sullivan, D. L., & Flanagan, N. B.** *Practical psychotherapy with adolescents.* *New Engl. J. Med.*, 1939, 221, 414-419.—*W. J. Brogden* (Wisconsin).

1431. **Teagarden, F. M.** *The art and technology which deals with the adjustment problems of human beings.* *J. consult. Psychol.*, 1939, 3, 170-176.—A brief survey of the development of the professional organization of clinical psychologists and an inquiry into the definition of clinical psychology. An examination is also made of professional training with particular reference to the present Pennsylvania requirements for certification of psychological examiners.—*P. S. de Q. Cabot* (Simmons).

1432. **Thompson, W. H.** *A study of the frequency of mongolianism in Negro children in the United States.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 91-94.—A questionnaire was sent to both state and private institutions for the feeble-minded and to public school systems in over 100 large cities concerning the number of mongolians in their populations. No school system reported any mongolian of the colored race. Returns from southern schools as well as from southern institutions failed to reveal any mongolians of the colored race. Of the 1777 mongolians in 45 institutions 21 were colored. Of 139 cases of the mixed type with mongolian tendencies only one was colored. Comparisons among age, sex and mental level of colored and whites are made.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1433. **Thompson, M.** *Social aspects of Minnesota's program for the feeble-minded.* *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 238-243.—"Laws in Minnesota from 1879 show an increasing social concept of feeble-mindedness. Since 1917 the State Board of Control has been made life guardian of

feeble-minded persons thought to be in need of supervision. This law and additional ones concerning the feeble-minded have been administered through county welfare units. Their administration has now become an integral part of the enlarged social program of the state. Permissive sterilization is one of Minnesota's laws for the feeble-minded. A questionnaire sent to counties in September 1938 relative to adjustment of those sterilized gives some indication of the trends of the program of supervision as well as the success of the one for sterilization."—*M. W. Kuenzel* (Children's Home, Cincinnati).

1434. **Thorpe, F. T.** *"Demolition melancholia."* *Brit. med. J.*, 1939, 127-128.—*W. J. Brogden* (Wisconsin).

1435. **Tomescu, P.** *Invățământul psihiatriei.* (The teaching of psychiatry.) *Bul. Soc. Psihol. med. Sibiu*, 1938, 6, 8-11.—The author gives various practical hints concerning the organization of psychiatry teaching in Rumania. Older physicians did not have great confidence in psychological therapy or in the therapy of mental diseases in general. The present situation is quite different. The necessity of a more intensive teaching of psychiatry is stressed.—*N. Marginean* (Cluj, Rumania).

1436. **Tooth, G., & Blackburn, J. M.** *Disturbances of memory after convulsive treatment.* *Lancet*, 1939, 237, 17-20.—*W. J. Brogden* (Wisconsin).

1437. **Trowbridge, L., Moore, M., & Gray, M. G.** *An estimate of the intelligence of alcoholic patients at the Haymarket Square Relief Station as related to chronological age, marital status, and occupation.* *New Engl. J. Med.*, 1939, 221, 59-62.—The Kent emergency test was given to 279 male alcoholic patients at the Haymarket Square Relief Station of the Boston City Hospital. The CA's ranged from 19 to 67 and the MA's from 9 to 14. 67% of the patients showed MA's of 13 or higher.—*W. J. Brogden* (Wisconsin).

1438. [Various.] *Die psychotherapeutischen Schulen. Eine grundsätzliche Aussprache.* (The psychotherapeutic schools. A fundamental thesis.) *Schweiz. Arch. Neurol. Psychiat.*, 1936, 38, No. 2. Pp. 42.

1439. **Vermeylen, G.** *Les troubles du caractère secondaire à l'encéphalite épidémique.* (The disturbances of character following encephalitis.) *Groupement franç. Etud. Neuro-Psychopath. infant.*, 1939, 2, No. 3, 61-72.—The author discusses the treatment and education, or re-education, of the young patients, either in their families or in special clinics or institutions. There is a discussion with Ombredane, Dublineau, Simon, and Heuyer.—*C. Nony* (Sorbonne).

1440. **Vlad, C.** *Schitarea unei biopsihologii normale si patologice.* (Outline of a normal and pathological biopsychology.) *Bul. Soc. Psihol. med. Sibiu*, 1939, 6, 40-44.—An attempt at synthesis between psychoanalysis and biology.—*N. Marginean* (Cluj, Rumania).

1441. **Weitbrecht, H. J.** Zur Frage der paranoiden Rückbildungspsychosen. (The question of the paranoid regressive psychoses.) *Nervenarzt*, 1939, 12, 394-405.—In the case of the majority of paranoid regressive psychoses, one must remain at present on a purely descriptive level. Neither hereditary pathology nor pathophysiology can give reliable information, while psychopathology has only limited possibilities.—*P. L. Krieger* (Leipzig).

1442. **Wells, F. L.** Mental measurement in effector disorders. *J. consult. Psychol.*, 1939, 3, 165-169.—A discussion of tests and procedures in the examination of mental ability with patients suffering from dysfunction of effector mechanisms. Suggestions are given for the administration and interpretation of tests in such cases and also for particularly appropriate tests at different levels. "The best insight into the intellectual processes where the effectors concerned are disorganized" is given in the application of multiple-choice questions. Photograph of author.—*P. S. de Q. Cabot* (Simmons).

1443. **Winterstein, O., & Meier, E. J.** Schädeltrauma und Aphasie des Mehrsprachigen. (Skull trauma and aphasia in a multilingual person.) *Chirurg*, 1939, 11, 229-232.—A woman whose native tongue was German learned French afterwards, and much later Italian. After an accident resulting in a skull fracture she spoke Italian for 4 or 5 days, French until the 14th day, and German thereafter. The affective experience caused temporary aphasia for the mother tongue in favor of languages which were learned later in life.—*P. L. Krieger* (Leipzig).

1444. **York, R. A.** The paroled boy—working and home. *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 254-258.—Social control of the feeble-minded must begin at home. Community adjustments must be made to permit the moron to fit the community. Custodial care is much too expensive. Paid "parole working" so far has provided the most satisfactory outlet for the trained, emotionally stabilized, high-grade imbecile and moron. In the future why not allot, tax free, submarginal farm lands to the retired, permanently unemployed, and pensioners on condition that they take into their homes one or more trained, stabilized mental patients? These would be engaged in farm, soil, and forest conservation and in flood-control projects.—*M. W. Kuenzel* (Children's Home, Cincinnati).

[See also abstracts 1139, 1201, 1210, 1230, 1246, 1248, 1255, 1277, 1279, 1319, 1328, 1329, 1334, 1511, 1520, 1521, 1524, 1526, 1530, 1531, 1534, 1590, 1627, 1634, 1642.]

PERSONALITY AND CHARACTER

1445. **Barbu, Z.** Determinarea conceptului de individualitate. (Determination of the concept of individuality.) *Rev. Psihol.*, 1939, 2, 142-152.—Individuality seems to be first of all a "style of being." This style is based upon a unity of signification and motivation. These two kinds of

unities bring a "style of reaction."—*N. Marginean* (Cluj, Rumania).

1446. **Barmack, J. E.** Studies on the psychophysiology of boredom: Part 2. The effect of a lowered room temperature and an added incentive on blood pressure, report of boredom, and other factors. *J. exp. Psychol.*, 1939, 25, 634-642.—S's rested for one-half hr., during which time three measures of blood pressure and heart rate were obtained. They then operated a pursuitmeter for eight 15-min. periods, at the end of each of which they filled out a subjective rating sheet containing scales of feelings or attitudes. Vascular measures during work were taken twice during each 15-min. period. The procedure was followed when the temperature averaged 24.7° C. and when it averaged 15.6° C. The lowered temperature resulted in the following: (1) a slight increase in systolic pressure; (2) a slight decrease in heart rate; (3) a report of increased alertness; (4) an insignificant effect on the attitude toward pursuit work. In a second experiment, at the end of the first half of the two hours of pursuit work the S's were promised a quarter for each of the subsequent four periods in which they equaled or exceeded their best previous score. The incentive resulted in: (1) a marked improvement in pursuit accuracy and report of increased interest and attentiveness; (2) a relatively small increase in systolic pressure and heart rate.—*H. W. Karn* (Pittsburgh).

1447. **Boda, I.** A személyiség szerkezete és kísérletes vizsgálata. (Structure and experimental research on personality.) Budapest: 1939. Pp. 41.—An introduction contains a list of the chief features of the personality, and describes methods for its investigation and that of its types. The structure of personality is described in Chapter II, including the superficial, the medium, and the deep strata of personality and the theoretical and practical meaning of this structural image, the basic methods of its investigation and their value, and the chief groups of the practically important diagnostic signs of personality. The authors' total method consists of 6 questionnaires, the use of which enables the reader to understand the inner bases of tendencies, of attitudes, and of actions. The appendix contains the questionnaires with directions for their use.—*P. Ranschburg* (Budapest).

1448. **Bönisch, R.** Über den Zusammenhang seelischer Teilstrukturen. (The interrelation between partial structures of personality.) *Neue psychol. Stud.*, 1939, 15, Teil 1. Pp. 144.—The purpose of this study was to describe by means of an experimental analysis those "especially important partial structures which one always finds in investigations of personality." The 35 subjects, most of them students of psychology, were given three tests prepared by Wartegg. One of these required the completion of geometrical designs, the second one an interpretation of such designs, and the third one the completion of stories. The results from these tests and a brief personality inventory permitted the author to describe the four partial structures of

affectivity, fantasy, intellect, and will. These structures possess specific polarities which in their interrelations produce a general personality polarity "ego-world," resembling Jung's introversion-extra-version. 11 plates.—*K. F. Muensinger* (Duke).

1449. Booth, G. C. Objective techniques in personality testing. *Arch. Neurol. Psychiat., Chicago*, 1939, 42, 514-530.—Two techniques for personality examination are presented and discussed: "the analysis of handwriting, which approaches the person from the side of his action pattern and is apt to reveal the various organic factors which mold and influence his personality"; and "the Rorschach method, which records the inner attitude of the person toward life, his constructive and reactive tendencies, and his intellectual control."—*W. J. Brogden* (Wisconsin).

1450. Frenkel-Brunswik, E. Mechanisms of self-deception. *J. soc. Psychol.*, 1939, 10, 409-420.—40 graduate students in psychology at Vienna rated themselves and each other on character traits. The chief findings were distortion into the opposite; omission; justification of defects; shifts in emphasis; shifts in order.—*G. Brighouse* (Occidental).

1451. Gardner, J. W. Level of aspiration in response to a prearranged sequence of scores. *J. exp. Psychol.*, 1939, 25, 601-621.—The four tasks used in this experiment were card sorting, digit-symbol substitution, a multiple-choice test of opposites, and cancellation performed while counting backward. A score was reported to the subject after each trial in a given task, and he was then required to state a level of aspiration for the succeeding trial. The scores reported to the subject were never his actual scores. Instead, every subject was presented with the same series of prearranged scores. The pattern of this prearranged performance curve was also the same for all four tasks, although the curve was shifted a few points in the different tasks so that the same actual numbers would not be involved. The chief aspect of aspiration level measured was the discrepancy between aspiration level and level of past performance. It was found that reliable measures could be obtained, and high intercorrelations between tasks indicated that the behavior underlying these measures was characterized by a high degree of generality. Discrepancies between aspiration level and past performance level tended to be positive and low when performance was improving rapidly and markedly higher when the curve was falling. Individuals tended to maintain the same rank within the group with respect to discrepancy scores when the performance curve was rising as when it was falling.—*H. W. Karn* (Pittsburgh).

1452. Gundlach, R. H. Emotional stability and political opinions as related to age and income. *J. soc. Psychol.*, 1939, 10, 577-590.—A questionnaire revealed that radical opinions are correlated with poverty, and that neurotic tendency is correlated with poverty; however, those with radical scores were not the same individuals as those with neurotic

tendencies. The reliability of the questionnaire was .875.—*G. Brighouse* (Occidental).

1453. Hartnacke, W. Methodisch-Kritisches zu neueren seelenkundlichen Zwillingsforschung. (A methodological criticism of the newer psychological research on twins.) *Rasse*, 1939, 6, 311-322.—Both Pfahler's system and Eckle's investigations are oriented psychologically and stress character too little. Eckle disregards the natural latitude in unimportant behavior as an explanation, and assumes as hereditary type difference something which cannot be delimited from the influence of experience. Only studies on the concordance and discordance of twins in the feeling for values can bring an advance in this field.—*P. L. Krieger* (Leipzig).

1454. Horowitz, E. L. A dynamic theory of security. *J. soc. Psychol.*, 1939, 10, 421-435.—Security and insecurity are functions of the interaction of the individual and the environment; they may develop in relation to the "content" or to the "form" of a situation. Aspiration level determines and is determined by security.—*G. Brighouse* (Occidental).

1455. Jung, C. G. The integration of the personality. (Trans. by M. Stanley Dell.) New York: Farrar & Rinehart, 1939. Pp. 313. \$3.00.—In this volume the author describes in detail the process of individuation, or that psychological process through which the human being becomes an individual. The role of the conflict between conscious and unconscious forces and the symbols whereby the deeper levels of the unconscious manifest themselves are discussed. The author illustrates his material with case histories and historical examples from alchemy, religion, etc. An index is appended.—*M. Keller* (Yale).

1456. Leiter, A. Zur Vererbung von asozialen Charaktereigenschaften. (The inheritance of asocial character traits.) *Zbl. ges. Neurol. Psychiat.*, 1939, 94, 343.—Schröder's multidimensional method was applied to investigate the mechanism of inheritance of character in 800 asocial children. Their traits were found to be heritable in isolation as well as in combinations. 40% of 300 "tough" children came from definitely "tough" parents, 19.3% of whom were criminals. Practically all hypomanic children, possessing a cheerful attitude, came from similar families in very reduced circumstances and with a criminality index of 16%.—*P. L. Krieger* (Leipzig).

1457. Pace, C. R. A situations test to measure social-political-economic attitudes. *J. soc. Psychol.*, 1939, 10, 331-344.—A situations test of 38 items, each with from 4 to 7 ways of responding. 25 known radicals and 25 known conservatives showed satisfactory differences and a reliability of .80. An equivalent form showed a reliability of .70.—*G. Brighouse* (Occidental).

1458. Portenier, L. Twinning as a factor influencing personality. *J. educ. Psychol.*, 1939, 30, 542-547.—"The groups were too small to secure statistically reliable differences or to justify drawing

any general conclusions. However, the findings tend to agree with studies involving larger groups of twins and suggest that growing up as a twin may be a handicap in making a wholesome adjustment."—*R. M. Bellows* (Maryland).

1459. **Robertson, A. E., & Stromberg, E. L.** The stability of personality ratings during college residence. *Sch. & Soc.*, 1939, 50, 639-640.—Royer's personality inventory was given to resident upper-class women in 1935 and again 2½ years later. Comparison of the total scores of the 42 students who took both tests showed an average increase (toward dominance-extraversion-adjustment) which was statistically significant. Only 4 students gave a lower score on the retest. Aside from the selective factor due to maladjusted students dropping out, it can be concluded that self-ratings of personality traits do change during college attendance.—*M. Lee* (Chicago).

1460. **Schnepp, A. F.** The acquisition of attitudes. *Cath. educ. Rev.*, 1939, 37, 579-591.—This is a criticism of attitude studies as relying too much on sociological theory or on statistical manipulation, with a plea for longitudinal studies of attitudes. "The fact is that any experience which has emotional value at all probably leaves traces behind it in the form of mutations in already existing attitudes, or, in some cases, the inchoation of some new attitude."—*W. L. Wilkins* (Shorewood, Wis.).

1461. **Schultz, J. H.** Das Endgültigkeitsproblem in der Psychologie des Rückbildungsalters. (The problem of reorientation in the psychology of old age.) *Forsch. Fortschr. dtsch. Wiss.*, 1939, 15, 346-348.—Characteristic of diminished performance in old age is the shift involving emphasis on the inner life. Those who are energetic develop new social interests and new productivity; domination gives way to organization and conservation. On "arriving" in the deeper sense, they are relieved of the urge of vanity and the need for struggle, although even these motives may be reorganized inwardly. The religious problem is the chief concern of the aged.—*P. L. Krieger* (Leipzig).

1462. **Thorndike, E. L.** Familial resemblances in composites of desirable traits. *J. Hered.*, 1939, 30, 391-392.—Knowledge of the degree of familial resemblance in "general average excellence" is much more important as a basis for selection in any scientific eugenic program than is familial resemblance for single traits. To know the magnitude of familial resemblance, for instance, in a weighted composite of scores on tests of honesty, service, self-control, mental and physical health, and esthetic traits would probably produce human improvement more rapidly than is promised on the basis of expectation from fraternal and parent-child correlations for single traits, such as have been obtained for eye color, height, and IQ. Colleges which have 100 or more sibling-pair scores available to make up such a composite are urged to use them for the purpose. Thorndike, from ratings by five judges on intellect and morality for 93 male royal sibling pairs,

found an average r for each trait, separately, of .505; and an r for the composite of intellect and morality with approximately equal weight (1 and 1.2) of .57. The resemblance for 46 pairs of twins in two separate mental activities was .667 and .784 with .78 for the composite, the presence of identical twins "diluting the phenomenon." In both examples, the difference between separate and composite computations is less than would obtain for normal sibling pairs, because of the nature of the human material used.—*G. C. Schwesinger* (American Museum Natural History).

1463. **Wile, I. S.** Personality development and social control in terms of constitution and culture. New York: Oxford Univ. Press, 1939. Pp. 64. \$1.25.—Three lectures at the Tavistock Clinic, 1937: Personality in terms of constitution; Personality in relation to culture and social control; and The prevention of personality disorders. Patterns of behavior and the development of a more favorable culture should safeguard constitution.—*O. W. Richards* (Spencer Lens Company).

[See also abstracts 1256, 1358, 1427, 1472, 1491, 1499, 1510, 1516, 1519, 1550, 1590, 1623, 1642.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

1464. **Aizawa, M.** Experimental studies on successive musical intervals. II. The judgment on the pureness of a single interval. Chiefly on the influence of the direction of melodic tone motion on the judgment. *Tohoku psychol. Folia*, 1939, 7, 159-188.—The problem was that of the influence of the tone motion upon the deviation of the subjectively perfect intonation of a musical interval from its objectively perfect one. The experimenter presented (with tuning forks and reeds) several kinds of the rising and the falling fifth to the observers, and found that the rising fifth is preferred a little enlarged, as was already reported by Stumpf, while on the contrary the falling fifth is preferred a little diminished.—*T. Chiba* (Sendai).

1465. **Bean, K. L.** The use of visual, auditory, and kinesthetic imagery in the transfer of musical notation to the piano keyboard. *J. educ. Psychol.*, 1939, 30, 533-541.—Performance of 10 subjects in tasks involving auditory, visual, or kinesthetic imagery was measured to study use of imagery in reading music. Visual imagery was used most and was clearest for most of the subjects.—*R. M. Bellows* (Maryland).

1466. **Belden, J.** Measuring college thought. *Publ. Opin. Quart.*, 1939, 3, 458-462.—This article describes Student Opinion Surveys of America, an organization to provide scientific sampling referenda for colleges of the nation. It was established at the University of Texas in 1938 to parallel in the campus press the findings of the American Institute of Public Opinion as used in the metropolitan newspapers. 85 college and university newspaper editors

cooperate in conducting the surveys in return for the weekly release of results. While the absence of national elections among college populations makes empirical checks of accuracy difficult, there are indications that the results correspond closely to those of the Gallup poll.—*K. B. Breland* (Louisiana).

1467. **Bogardus, E. S.** *Causes of race antagonism; an outline.* *Sociol. soc. Res.*, 1939, 24, 166-170.—*O. P. Lester* (Buffalo).

1468. **Britt, S. H., & Menefee, S. C.** *Did the publicity of the Dies committee in 1938 influence public opinion?* *Publ. Opin. Quart.*, 1939, 3, 449-457.—The effects of newspaper reports of the Dies committee's investigation were studied by means of an experiment. Students in elementary psychology classes were used as subjects. Four conditions were studied. "The results for these experimental groups indicate that the effects of the Dies committee's campaign against what it calls 'un-Americanism' may have been less than some observers have supposed. Nevertheless the study indicates that pinning the label 'communism' on anyone or anything disliked is quite effective."—*K. B. Breland* (Louisiana).

1469. **Buswell, G. T.** *Remedial reading at the college and adult levels.* *Suppl. educ. Monogr.*, 1939, No. 50. Pp. xi + 72.—The purpose of this investigation was to determine the possibility of achieving the following objectives, which are considered essential to the improvement of the reading process: (1) elimination of vocalization, (2) improved mastery of vocabulary, (3) broadened span of recognition, (4) increase in the speed of recognition, (5) elimination of regressive movements of the eyes. A total of 128 experimental and control subjects were used. The experimental subjects were tested and received individual practice consisting of reading with rate controlled by a film projector, study of vocabulary material, free reading, etc., for a 50-minute period, 5 days a week for 4 weeks. The results indicated variable gains for all experimental groups in span of recognition, reduction of regressive movements, speed of recognition, and rate of reading as measured by eye-movement records.—*M. Keller* (Yale).

1470. **Cantril, H.** *The rôle of the radio commentator.* *Publ. Opin. Quart.*, 1939, 3, 654-662.—A questionnaire to determine the place of the news commentator in the acquisition of news and his effect upon his following is described. The subjects were 43 Boake Carter listeners selected at random and interviewed on five different days, each of which followed an evening broadcast by Carter. The results of the questionnaire indicate that: (1) The commentator provides standards of judgment for those who lack them. This lack occurs mostly in the low socio-economic class. (2) Those who have standards of judgment tend to listen to a commentator whose point of view resembles their own. (3) For those in the upper brackets the commentator provides vicarious satisfaction from the comforting feeling that others may be influenced by their way of thinking.—*K. B. Breland* (Louisiana).

1471. **Chen, L. L.** *An attitude study of Chinese women toward marriage problems.* *Sociol. World*, 1930, 3, 129-158.

1472. **Clark, K. B., & Clark, M. K.** *The development of consciousness of self and the emergence of racial identification in Negro preschool children.* *J. soc. Psychol.*, 1939, 10, 591-599.—The authors modified the Horowitz picture technique by showing to 150 Negro children, between 3 and 5 years old, cards illustrating white and Negro children, and animals, and asking: "Which is you?" It was found that the majority of children at all ages studied made correct identifications.—*G. Brighouse* (Occidental).

1473. **Criswell, J.** *Social structure revealed in a sociometric retest.* *Sociometry*, 1939, 2, No. 4, 69-75.—The "survival value" of group structures over a 6-week period was determined by a sociometric retest of 216 children in a 75%-Negro school, where the subjects made 1st and 2nd choices of classmates beside whom they would like to sit. 42% of the children changed 1st or 2nd choices, and 41% of the total choices were changed. However, 2nd choices showed less stability than 1st choices, and reciprocated choices were most stable of all, changing in only 20% of the cases. Despite fluctuation of choice, the group structure was unaltered: the percentage of isolated individuals and of reciprocated choices remained the same, as did the sex and race cleavages. The reasons for change offered were generally on the basis of bad class conduct, while the changes generally involved the shifting of individuals at almost the same level of preference in each person's social molecule.—*L. J. Stone* (Vassar).

1474. **Critchley, M.** *Spastic dysphonia.* *Brain*, 1939, 62, 96-103.—Three cases are reported in which there was an uncommon and peculiar type of speech affection, whereby the voice is emitted in a constrained, forced, and barely intelligible fashion. There is also an imperfect modulation of the voice, together with a faulty pronunciation of the vowel and consonant sounds. Frequently tic-like contractions of the face, neck, and even upper limbs may accompany this type of vocalization. While other cases of this type of speech in association with progressive cerebellar degeneration and double athetosis have been reported, no confident neurological diagnosis could be made in these cases.—*W. J. Brogden* (Wisconsin).

1475. **Devereux, G.** *The social and cultural implications of incest among the Mohave Indians.* *Psychoanal. Quart.*, 1939, 8, 510-533.—An analysis is made in terms of Mohave culture of data collected by the writer about the Mohave Indians, with particular reference to the ramifications of incest in all phases of that culture. An account is given of incest in myth and folklore, of exogamy and incest taboos, the dissolution of kinship in incestuous marriages, miscellaneous customs connected with incest, and incest proper, with illustrative material and general discussions of the data. The author concludes with general psychological interpretations of his findings and of their relation to psychoanalysis,

and he concludes that in the Mohave culture, "where emotional bonds are tenuous, the family is truly a social body which not merely grows but also secretes." A 31-item bibliography is appended.—*M. H. Erickson* (Eloise Hospital).

1476. Drake, R. M. What is musical talent? *J. Musicol.*, 1939, 1, No. 2, 9-13.—This article is reprinted from the January 1935 issue of *Tempo*. Drake holds that musical memory is the most important factor in musical talent. Other important factors are pitch discrimination, sense of rhythm, musical intelligence (sensitivity or insight), muscular skill and fine neuro-muscular coordination.—*P. R. Farnsworth* (Stanford).

1477. Einsenberg, P., & Reichline, P. B. Judging expressive movement: II. Judgments of dominance-feeling from motion pictures of gait. *J. soc. Psychol.*, 1939, 10, 345-357.—Motion pictures of the gait of 8 dominant women and 8 non-dominant women were observed by 99 judges. Dominant women were judged a little better than chance. There was no sex difference in accuracy of judgment.—*G. Brighouse* (Occidental).

1478. Farnsworth, P. R. Changes in musical taste. *J. Musicol.*, 1939, 1, No. 2, 1-4.—A cross-sectional study had been made in 1926 of the Kwalwasser harmonic sensitivity test, using 184 5th-graders, 202 8th-graders, and 259 university undergraduates. The data showed that with increasing musical sophistication there was a tendency to brand fewer and fewer stimuli as bad. In a later longitudinal study in which 156 5th-graders were tested in 1934 and retested in 1937 the same tendency was shown. A scrutiny of the scores of 116 other 5th-graders also tested in 1937 showed that the change was not that of a general cultural shift. The older subjects agreed better among themselves. Stimuli rated by the 5th-graders as bad were so regarded by more subjects after a period of 3 years. Similarly, stimuli regarded in the 1934 testing as good were so rated by more of the subjects in 1937.—*P. R. Farnsworth* (Stanford).

1479. Fitzgerald, J. A. An experiment in remedial reading. *Cath. Sch. J.*, 1939, 39, 108-111.—Report of methods of diagnosis of 100 severely retarded readers and remedial measures used to assist them.—*W. L. Wilkins* (Shorewood, Wis.).

1480. Franz, J. G. Survey of sociometric techniques, with an annotated bibliography. *Sociometry*, 1939, 2, No. 4, 76-92.—*L. J. Stone* (Vassar).

1481. Granneberg, R., & Gundlach, R. H. A preliminary study of political campaigning. *J. soc. Psychol.*, 1939, 10, 437-439.—Attempts to influence voters in an election for a United States senator and on a referendum were made by means of personal calls and mimeographed appeals. These campaign techniques had no effect on wealthy voters; the referendum vote of the poor was not affected, but there was some slight effect on the senatorial vote.—*G. Brighouse* (Occidental).

1482. Greene, E. B. Michigan vocabulary profile test. Forms Am and Bm; for high schools and

colleges. Yonkers-on-Hudson: World Book, 1939.—See XII: 944.

1483. Hansen, H. C. Relationship between sex and school achievement of one thousand Indian children. *J. soc. Psychol.*, 1939, 10, 399-406.—On the Tracy short-answer tests, boys excelled in social science, girls in English and penmanship. Whites scored better than Indians in all tests except handwriting. There were greater sex differences among Indians.—*G. Brighouse* (Occidental).

1484. Harms, E. A., & Malone, J. Y. Hearing acuity and stammering. *Ann. Otol., etc., St. Louis*, 1939, 48, 658-662.—Clinical material reveals a rarity of stammering in patients with a total loss of hearing. Stammering becomes more frequent in cases where the hearing loss is approximately 50%. In 62 consecutive cases of stammerers who were unaware of any hearing loss there was found a hearing loss of from 10 to 22%. This finding suggests a relationship between hearing loss and the development of stammering.—*W. J. Brogden* (Wisconsin).

1485. Hartmann, G. W. Value as the unifying concept in the social sciences. *J. soc. Psychol.*, 1939, 10, 563-575.—Address of the chairman at the Stanford University meeting of the Society for the Psychological Study of Social Issues, September, 1939.—*G. Brighouse* (Occidental).

1486. Hayes, S. P., Jr. The inter-relations of political attitudes: II. Consistency in voters' attitudes. *J. soc. Psychol.*, 1939, 10, 359-378.—8419 voters on 12 issues in the 1932 campaign were given two contradictory statements on each issue. Many subscribed to mutually contradictory statements. Socialists were more consistent than members of the major parties, Republicans slightly more consistent than Democrats, men than women, upper occupational groups than lower occupational groups.—*G. Brighouse* (Occidental).

1487. Hayes, S. P., Jr. The inter-relations of political attitudes: III. General factors in political issues. *J. soc. Psychol.*, 1939, 10, 379-398.—Tetrachoric correlations of questionnaire answers given by 8419 voters showed a general "liberal-conservative" attitude series. Less important attitudes were internationalism and national socialism.—*G. Brighouse* (Occidental).

1488. Hayes, S. P., Jr. The interrelations of political attitudes: IV. Political attitudes and party regularity. *J. soc. Psychol.*, 1939, 10, 503-522.—Continuing previous reports on the political affiliations and attitudes of 8419 voters, it was found that the correlation between the 1928 votes and the 1932 votes was .57. 17% of those studied changed party affiliation between 1928 and 1932. "Bolting" to the Democratic party was associated with liberal attitudes, and to the Republican party with conservative attitudes. Democrats were found to be more ready to accept any statement given them, Republicans least likely. Socialists fell between members of the regular parties in "gullibility."—*G. Brighouse* (Occidental).

1489. Holmes, S. J. Darwinian ethics and its practical applications. *Science*, 1939, 90, 117-123.—The author points out the implications of Darwin's evolutionary theory upon ethics and shows that fundamentally our ethics is Darwinian. In conclusion he pleads for a more scientific view of ethical problems and holds that through becoming a science ethics can perform its greatest service.—F. A. Mole, Jr. (Brown).

1490. Hulett, J. E., Jr. Social role and personal security in Mormon polygamy. *Amer. J. Sociol.*, 1940, 45, 542-553.—Adult Mormons, drawn from monogamous societies as proselytes, who married into polygamy were presented with no well-defined role. Because of this and their monogamous backgrounds they found it difficult to achieve satisfactory marriage adjustment in the polygamous family and consequently experienced thwarting and insecurity. By analyzing the role of plural wife it is shown that Mormon society contained devices both within and outside the family organization that mitigated this insecurity: the chance of attaining celestial security, economic and social prestige in the community, control of her own house and children, and the attention of the husband. Insecurity was produced by: the patriarchal family system, loss or threatened loss of economic security, advent of a younger wife into the family, and loss of husband's attention for other reasons.—D. L. Glick (Brown).

1491. Hunter, E. C., & Jordan, A. M. An analysis of qualities associated with leadership among college students. *J. educ. Psychol.*, 1939, 30, 497-509.—Student ratings, faculty ratings, and leadership records were used to select a group of 82 leaders. 25 of these were classed as outstanding leaders; 103 non-leaders were selected as controls. Subjects of all three groups were measured on 25 characteristics. When compared to the non-leaders, the 82 leaders were lighter in weight (critical ratio of 4), younger (C.R.3); had higher ACE intelligence scores (C.R.8), vocabulary (C.R.15), scholarship (C.R.4), interest maturity (C.R.6); and were different in self-sufficiency measures (C.R.5), dominance-submission (C.R.4), attitude toward the Negro (C.R.6), and general attitudes (C.R.4). The typical leader had college-trained parents and was interested in law or journalism.—R. M. Bellows (Maryland).

1492. Jennings, H. H. Quantitative aspects of tele relationships in a community. *Sociometry*, 1939, 2, No. 4, 93-100.—In a community large enough to permit each individual an "unlimited" choice of associates (persons with whom to work or to live in the same cottage), the number of choices does not follow the normal distribution curve. Nor is "emotional expansiveness" (the number of choices made by an individual) correlated with choices received, although there is a correlation when direct reciprocations of choices are considered. It was further found that the condition of unlimited choice did not eliminate isolates, or unchosen individuals. Quantitative methods are suggested for the study of such findings beyond this exploratory stage.—L. J. Stone (Vassar).

1493. Klein, H. [Ed.] Propaganda!—the war for men's minds; a survey of forces today shaping attitudes and actions. Los Angeles: Los Angeles City College Press, 1939. Pp. 103. \$0.50, paper.

1494. Kramer, I. Factors in reading preferences. *Cath. educ. Rev.*, 1939, 37, 440-453.—A review of recent studies on reading interests.—W. L. Wilkins (Shorewood, Wis.).

1495. Lin, C. T. [A historiometric study of thirty-four eminent Chinese.] Peiping: Catholic Univ., 1939. (*Fu Jen Stud. Psychol.*) Pp. 72. \$0.80.—This investigation, largely statistical, is patterned after Terman and Cox's "Genetic Studies of Genius, Vol. II" and attempts to discover (1) the mental traits that characterize eminent Chinese (Tang through Tsing dynasties, 618-1911 A.D.), and (2) the reliability and validity of the historiopsychometric method as applied to Chinese biographical data. The report embodies 5 chapters, with an appendix of 66 pages presenting biographical sketches. The rank order of eminence was determined by the equal-appearing-interval method (reliability = $.86 \pm .02$). The general intelligence was rated on an 11-point scale by 5 psychologists specializing in the field of mental testing. The average ratings for the 34 cases range from 7.0 to 9.5 (not far from IQ 140 to 190) with P.E. around .07. The average reliability of ratings is .85, obtained by correlation with re-rating after an interval of 4 weeks. The average intercorrelation between the 5 raters is $.67 \pm .10$. Intelligence score has a low negative correlation with rank order of eminence ($r = -.23 \pm .10$) and a low positive correlation with length of life ($r = .21 \pm .10$). The standard deviation of intelligence average correlates $-.53 \pm .08$ with adequacy of data. Spranger's *Lebensformen* for 18 representative cases were rated by 2 judges on a 5-point scale independently. Historical men of eminence, on the average, were rated higher than college men in most of the basic types of interests. The critical ratios of the differences were determined and the reliability of the ratings checked. Finally the author employed matching methods for detecting "the validity of quantitative expression of the historical genius' mind." When two judges matched 10 sets of statistical data with 10 biographical sketches 90% success in identification was found. This evidently shows that the historiopsychometric method as used in this experiment is highly valid. A new psychograph is introduced in Chapter III. English summary.—K. Liu (Yenching University).

1496. Lipps, H. Die Wirklichkeit bei den Naturvölkern. (Reality among primitive peoples.) *Forsch. Fortschr. dtsch. Wiss.*, 1939, 15, 353-354.—The image is taken for the thing, and the dream has equal weight with reality. This signifies, not a lack of critical discrimination, but a "de-realizing" of external phenomena. The latter are regarded simply as appearances that seek to report something to the individual. Masks signify confrontation by that which cannot be faced freely. The individual is scrutinized without being able to return the scrutiny.—P. L. Krieger (Leipzig).

1497. Loomis, C. P. **Informal social participation in the planned rural communities.** *Sociometry*, 1939, 2, No. 4, 1-37.—In the last of a series of articles in this journal on 7 resettlement project communities, it is reported that families associating to the extent of actual visiting formed their acquaintanceships in 40% of the cases through an actual visit by one of the families, and in about 25% through fortuitous circumstances. There was more borrowing and exchange of work than the families had known in the pre-resettlement communities, and this combination of social and economic activities suggested a greater significance to the families involved of the present associations than of those prior to resettlement. Associating families tended to resemble each other in the extent of formal and informal social participation and in "level of living." Resettled families showed less association with kinfolk than previously, but more of the associating families in these communities had children playing together. Although resettlement has apparently not resulted in secularization, the associating families were less likely than previously to be members of the same church, and common membership in cooperatives and other non-religious organizations was more important than in most non-resettlement communities.—L. J. Stone (Vassar).

1498. Lowery, H. **Music and psychology.** *J. Musicol.*, 1939, 1, No. 2, 14-18.—The psychology of hearing and the educational psychology of music must be differentiated from the psychology of music. The first does not deal with music; the second deals only with technique; the third deals with interpretation. Many careful experiments will be needed based upon musical material before we know much about the musical mind.—P. R. Farnsworth (Stanford).

1499. Middleton, W. C. **The ability of untrained subjects to judge dominance from handwriting samples.** *Psychol. Rec.*, 1939, 3, 227-238.—Handwriting samples of 5 men and 5 women, representing 5 different percentile rankings of dominance as measured by the Bernreuter personality inventory, were presented to 100 untrained judges equally divided as to sex. Judgments were then made on a 7-point scale. Results generally were: (1) reliability coefficients of judges' ratings of dominance were low, and these judgments were not highly consistent; (2) the correlation between the judges' dominance ratings and the Bernreuter percentiles of the 10 subjects was $-.11$; (3) the ratings of the women judges were slightly more consistent than those of the men judges; (4) the men judges were slightly superior to the women judges in rating the subjects regardless of sex.—P. S. de Q. Cabot (Simmons).

1500. Migliorino, G. **L'emozione musicale.** (Emotion arising from music.) *Pisani*, 1938, 58, 485-501.—The author shows that the causes underlying the mechanism of emotion aroused by music are as follows: the physical action of the sounds on the body; psychomotor induction; and the power of recall as possessed by music, a recall either of images

or of memories (i.e., the action of the music on the imagination and on memory).—R. Ricci (Rome).

1501. Moore, J. E. **Sex differences in speed of reading.** *J. exp. Educ.*, 1939, 8, 110-114.—The measuring instrument used in this study was the Van Wagenen rate-of-comprehension test, form B. Test results show that girls are consistently more rapid readers than boys at each grade level from the eighth grade in junior high school through the sophomore year in college. The difference between the means in the number of paragraphs read by the boys and by the girls was reliable in only 4 of the 9 comparisons made, but all 4 instances favored the girls. When all the girls' scores are combined into one distribution and compared with the combined scores of the boys, the mean score of the girls excels that of the boys and the difference is statistically reliable.—H. W. Karn (Pittsburgh).

1502. Pallares, E. **Los fundamentos psicológicos del derecho de propiedad.** (The psychological bases of the law of property.) *Rev. mex. Sociol.*, 1939, 1, 76-79.—Many discussions regarding the right to property lose sight of the fact that this institution is based upon human experience and sentiment. A bird acts as though he had a right to the nest that he builds; a mother claims her own child; the farmer claims as his what he earns by the sweat of his brow. Property rights are biological phenomena arising in part from experience. These rights rest upon sentiments and feelings rather than upon logic, and the closer one lives to and struggles with nature the stronger these sentiments regarding property become.—J. W. Nagge (Emporia State College).

1503. Pear, T. H. **The psychology of conversation.** New York, London: Nelson, 1939. Pp. 171. 2/6.—Conversation may occur subjectively, and egocentric speech has been reported as preponderant among children. Memory for conversation is unreliable; its subjects vary with the background and interests of the speakers. Its use and accompaniments as a mode of social approach and behavior include such matters as tact, taboos, and interruptions. Important technical applications are in interviewing (social work, vocational guidance, ethnological research) and in psychotherapy, in both of which specific techniques and personalities are significant.—R. R. Willoughby (Brown).

1504. Ponzo, M. **Un fattore da porre in primo piano nello sviluppo della lotta contro gli sprechi.** (An important factor in the development of a struggle against waste.) *Atti Sprechi e Recup.*, Torino, 1939.—R. Ricci (Rome).

1505. Preda, G., & Mates, E. **Raportul dintre nivelul intelectual al copiilor si profesiunea parintilor.** (The relation between children's intelligence and father's occupation.) *Bul. Soc. Psihol. med. Sibiu*, 1939, 6, 33-39.—375 school children are examined with intelligence tests. The average IQ was 91 for children whose parents are unskilled workers, 98 for those whose parents are skilled workers, 105 for those whose parents are white-collar workers

(clerks), and 115 for children whose parents have academic training. The first group of occupations gave 42% of the total of feeble-minded children, the second 30%, the third 9%, and the fourth none.—*N. Marginean* (Cluj, Rumania).

1506. **Riemer, S.** A research note on incest. *Amer. J. Sociol.*, 1940, 45, 554-565.—Incest, especially father-daughter, occurs not infrequently in Sweden among agricultural laborers of low cultural standard and similarly disorganized industrial laborers. The typical life history of fathers shows a unique configuration of circumstances: Broken homes, tension between parents, and frequency of child labor minimize educational influences; the occupational life shows frequent changes of jobs, and jobs with a declining trend, at the inception of incestuous behavior; some time before the beginning of the incestuous relationship the life routine has been interrupted by some crisis; in almost all cases the father suffers extreme sexual frustration, having been refused intercourse with his wife. These different instances of the life history have to be integrated into a comprehensive conception of the social attitudes of the patient. Incest is regarded as due to indifference toward social responsibilities coinciding with an extreme frustration of the sexual drive.—*D. L. Glick* (Brown).

1507. **Sanders, I. T.** Sociometric work with a Bulgarian wood-cutting group. *Sociometry*, 1939, 2, No. 4, 58-68.—In a small Bulgarian village the local government, in the late autumn, divides its members into wood-gathering groups, with arbitrarily determined leaders. The groups are temporary and the conditions under which the work is done and the wood divided among the village families produce considerable strife and difficulty. A sociometric study of one of the ten sub-groups, in which each head of a family selected those with whom he would like to work and those whom he would exclude, revealed that the criteria employed by the mayor in selecting the leaders were not those of the members of the group, who indicated very different preferences. The effect of kinship on the choices was studied, and it was noted that relatively isolated individuals (who would presumably feel isolated and insecure) tended to select their relatives. There was no reverse effect: the relatives chosen by any individual tended to be those who were generally popular in the entire group. There was some tendency to reject or select entire family clusters, generalizing the popularity of specific individuals within the cluster.—*L. J. Stone* (Vassar).

1508. **Schliebe, G.** Schrifttumsschau zur Psychologie der Zweisprachigkeit. (Bibliographical survey of the psychology of bilingualism.) *Dtsch. Arch. Landesf. Volksforsch.*, 1939, 3, 475-488.—Review of 157 German and foreign studies.—*P. L. Krieger* (Leipzig).

1509. **Schmidt, W.** The culture historical method of ethnology. (Trans. by S. A. Siber.) New York: Fortuny's, 1939. Pp. xxx + 383. \$5.00.—This book carries the subtitle *The scientific approach to*

the racial question. The author considers ethnology as essentially an historical science, and the book is a systematic treatment of ethnology by the historical method. He rejects the so-called psychological method in ethnology because "It investigates almost exclusively the influence of the material environment on the mind and neglects almost entirely the study of the interaction of mind upon mind." While the psychological method of studying ethnology is criticized and rejected, considerable stress is placed upon the close relationship between ethnology and psychology. Ethnology is defined as "a science of the mind. All that it deals with has proceeded from the mind, has gone through the mind and bears its impress, and it is precisely through this process that it becomes culture object."—*L. M. Baker* (Berea).

1510. **Schwab, J. B.** Occupational attitudes of lawyers. *Sociol. soc. Res.*, 1939, 24, 53-62.—A preliminary examination into the effects of an occupation on personality as revealed in a study of 13 attorneys.—*O. P. Lester* (Buffalo).

1511. **Simon, T.** A propos de l'échelle de capacité sociale de Doll (Vineland). (Comments on Doll's Vineland social maturity scale.) *Soc. A. Binet*, 1939, 39, 73-89.—A French translation of the scale is given, and its usefulness to all those concerned with the education of backward children or adolescents is pointed out. An attempt must be made toward its improvement and completion so as to increase as much as possible the number of jobs available to subnormal persons. Simply listing the vocations is not sufficient, for each includes many degrees of activity, some of which are within the capacities of morons or even of imbeciles, while others require a higher level of intelligence; it is therefore necessary to make a detailed analysis of each vocation.—*C. Nony* (Sorbonne).

1512. **Smith, M.** A note on attitude patterning among protagonists of war and capital punishment. *J. soc. Psychol.*, 1939, 10, 553-558.—Using 191 subjects on an attitude inventory, it was found that there is a low correlation between student attitudes toward war and capital punishment. There was no tendency for extremists in either attitude to be more consistent on the other attitude.—*G. Brighouse* (Occidental).

1513. **Vellard, J.** Une civilisation du miel: les Indiens Guayaki du Paraguay. (A honey civilization: the Guayaki Indians of Paraguay.) Paris: Gallimard, 1939.—A description of the manners, technical development, social organization, and language of the Guayaki, who live in the forests of Paraguay. All the evidence leads to the conclusion of an almost complete absence of civilization; the important part played by honey in the life of those Indians is due only to the lack of any other regular food; the only original feature of their hardly existent "civilization" seems to be their use of wax as a waterproof coat inside baskets, which can thus serve as vessels for keeping and transporting honey.—*C. Nony* (Sorbonne).

1514. Visser, H. L. A. *Geheimzin ondanks openbaarheid*. (Mystery in an age of publicity.) *Mensch en Maatsch.*, 1939, 15, 379-392.—Although the present era is one of free and open public discussion, there still is room for mystery in certain respects. Secret organizations flourish on the social scene to influence political events and bring about reorganizations and revolutions. Predictions of what the future holds for this uncertain world take the form of reliance on old prophecies, usually religious in nature, or new contributions like those of astrology. These claims lead to a renewed interest in the occult on a more scientific basis, as in parapsychology. This development was caused by five factors: (1) the unrestricted expansion of scientific inquiry into fields formerly taboo, (2) the tendency of physics to consider the universe a system of waves rather than impenetrable matter, (3) increased interest in the mysterious caused by the turbulence of our times, (4) greater need for some form of idealism in an increasingly materialistic world, and (5) the failure of naturalistic explanations to supply the certainty formerly provided by religion. The question must be faced whether dissatisfaction with utilitarianism and objectivity warrants a return to mystery.—H. Beaumont (Kentucky).

1515. Warner, L. *The reliability of public opinion surveys*. *Publ. Opin. Quart.*, 1939, 3, 376-390.—Possible sources of error of three types are pointed out: (1) definitional, (2) psychological, (3) mathematical. The first two are treated briefly, but the assumptions upon which the mathematical techniques of surveys rest are critically examined. Among other things random sampling and controlled sampling are taken up. Distributing interviews in proportion to the numerical size of subdivisions is advocated provided the size of the divisions is known with reasonable accuracy. Special emphasis is placed on the need for empirical checks. "There is great need for the testing of survey methods against a 100% survey of the population of a limited area."—K. B. Breland (Louisiana).

1516. Wiersma, E. D. *Toegang tot het gemoed van den medemensch*. (Empathy into the feelings of one's fellow men.) *Mensch en Maatsch.*, 1939, 15, 369-378.—Empathy into the feelings of their fellow men is a necessary tool of parents, teachers, psychologists, and physicians, who must acquire facility in its use. Subjective reactions can be aroused in ourselves to parallel those occurring in others by imitating their expressive movements or by carefully following their train of thought. A study of the individual's physical structure and physiological functions offers objective measures of subjective events. Several instances are given of the techniques used by 170 Netherlands physicians to obtain insight into the mental life of their patients.—H. Beaumont (Kentucky).

1517. Witwicki, L. *La foi des éclairés*. (The religious faith of the educated.) Paris: Alcan, 1939. Pp. 232. 40 frs.—An experimental investigation of the psychological mechanisms by which educated

adult persons of the Roman Catholic faith accept dogmas which their reason finds absurd, and which often revolt their ethical sense. The experiment consisted in submitting for their evaluation a story parallel in every detail to the biblical account of "man's first disobedience" and redemption, but without any religious attributes. An India rajah takes the place of Jehovah, a model school endowed with every comfort that of the Garden of Eden, an encyclopedia that of the tree of knowledge, a dismissed servant that of Satan, and the rajah's grandson that of Christ. The existence is shown of different kinds of faith, as regards either the nature or the content of beliefs.—C. Nony (Sorbonne).

1518. Zeleny, L. D. *Measurement of social status*. *Amer. J. Sociol.*, 1940, 45, 576-582.—Social status, defined as the degree of acceptance of a person by his associates in a particular group, exists in different amounts for different persons, and can be measured. To this end mathematical formulas for a social-status ratio and a social-status score are developed.—D. L. Glick (Brown).

1519. Zeleny, L. D. *Characteristics of group leaders*. *Sociol. soc. Res.*, 1939, 24, 140-149.—Leaders and non-leaders, as judged by associates, were rated in regard to characteristics which this and previous studies had found to distinguish leaders from non-leaders. Leaders in discussion groups were found to differ from non-leaders in self-confidence, participation, and prestige; appearance and self-control appear low on all lists as distinguishing the two groups.—O. P. Lester (Buffalo).

[See also abstracts 1137, 1138, 1140, 1153, 1227, 1270, 1273, 1317, 1321, 1322, 1330, 1331, 1338, 1366, 1415, 1432, 1443, 1449, 1452, 1457, 1460, 1463, 1530, 1536, 1553, 1575, 1581, 1582, 1589, 1590, 1602, 1603, 1628, 1629, 1636, 1640.]

CRIME AND DELINQUENCY

1520. Erckenbrecht, H. *Zur Frage der Sonderstrafbehandlung von Psychopathen*. (The question of special punishment for psychopathic criminals.) *Bl. Gefängnisk.*, 1939, 69, 437-443.—Special punishment for psychopathic criminals cannot be justified on the basis of revenge or prevention, nor is a cure to be expected in this way. Abnormal reactions can be individually handled in the course of general treatment. During the period of preliminary detention it should become clear which methods will be unnecessary or unsuitable after the patient starts serving his sentence.—P. L. Krieger (Leipzig).

1521. Glueck, B. *Contemporary issues in the relationship between psychiatry and law*. *J. crim. Psychopath.*, 1939, 1, 91-102.—The discussion begins with a consideration of the demoralizing aspects of contemporary civilization, such as its confusion, insecurity, and unbridled aggression. It is argued that the socialization of the child must be controlled by eliminating from his early experiences the removable and manageable obstacles to normal,

socially desirable individual development. The restrictions placed upon the individual by communal life carry with them the tacit understanding that society has assumed certain obligations toward him. A violation of any of society's obligations furnishes justification for the unleashing of primitive instincts and impulses. The realization of the aim of criminal law, viz. the restoration of the individual to fitness to live in the community in free association with others, cannot be achieved by segregation and punishment rigidly determined beforehand, but must depend on scientific treatment of the behavior aberration according to its own particular manifestations. The necessity for sustained public opinion in favor of promoting the availability of means and personnel equal to the task is stressed.—*A. Chapanis* (Child Guidance Study, Franklin, Tenn.)

1522. Hrdlička, A. The criminal. *J. crim. Psychopath.*, 1939, 1, 87-90.—"A crime . . . is a transgression of a stipulated gravity against some codified law, at the time and in the group at and in which committed . . . a criminal is one who has committed, and has been convicted of, such a transgression." In view of the large number of actual and potential criminals in this country, society would benefit by a set of safe guides for sorting out such individuals. Research has indicated that the diagnosis cannot be made on the basis of anthropometric or physical data, but rather must rest "on the circumstances that have affected that individual's heredity and life, and on his mental behavior."—*A. Chapanis* (Child Guidance Study, Franklin, Tenn.)

1523. Kernbach, M., & Cupcea, S. Contributiuni la cunoasterea constitutiei psihosomatice a criminalilor. (Contributions to the knowledge of the psychosomatic constitution of criminals.) *Bul. Soc. Psihol. med. Sibiu*, 1938, 6, 22-23.—300 criminals were examined with tests for emotional instability, intelligence, impulses, and neuroticism. The results are correlated with the psychosomatic constitutional type as diagnosed by the method of Barbara.—*N. Marginean* (Cluj, Rumania).

1524. Kinberg, O. Sinnessjukvård och fångvård. (Care of mental patients and care of prisoners.) *Svenska Läkartidn.*, 1939, 36, 1893-1921.—The writer describes in detail the development of the psychiatric and psychological viewpoints in Swedish criminology and discusses the effects of the practical measures introduced both in the penal code and along the line of special institutions for the criminally insane. The work of the legal-psychiatric state clinic, established in 1932, is given special attention.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1525. Niceforo, A. Che cosa è "criminologia"? (What is "criminology"?) *Criminalia*, 1939, 3, 1-32.—Criminology came into existence when people began to study not only the crime committed but also the person committing the crime. Through a study of the physico-psychic personality of the

delinquent, a new meaning has been given to criminology. The author gives a rapid survey of the possibilities of this new study of criminology and outlines suggested procedures. He does not believe that crime will disappear, since its source is both environmental and biotypological.—*R. Ricci* (Rome).

1526. Oberndorf, C. P. Voyeurism as a crime. *J. crim. Psychopath.*, 1939, 1, 103-111.—Voyeurism is a variation of sexual perversion characterized by a pathological indulgence in viewing some form of nudity as a source of gratification in place of the normal sexual act. Voyeurism and exhibitionism may be considered neurotically ambivalent; psychoanalytic studies indicate that the aim of genital exhibitionism may be a challenge, compensation, or inducement for others to show the exhibitor their genitalia. Voyeurism becomes a crime only when the object observed has not given consent, but some prohibition is an indispensable proviso for the act of the compulsive voyeur. Since this obsession is usually symptomatic of further deep-seated neurotic and psychopathic disturbances, mere detention or segregation will not benefit the individual.—*A. Chapanis* (Child Guidance Study, Franklin, Tenn.)

1527. Parratt, S. D. Criteria in criminal definitions—a study in the foundations of law enforcement. *J. crim. Law Criminol.*, 1939, 30, 332-352.—By means of Thurstone's third method of psychophysical scale building a scale of relative seriousness among 110 crimes, misdemeanors, and other acts was constructed based upon ratings by 50 lawyers and other professional men, government officials, office workers, business men, farmers, and housewives. Varying amounts of ambiguity or difference of opinion among the raters were found. Unless the "law" is supported by the citizens' approval, its enforcement by the police cannot be successful.—*L. Ackerson* (Illinois Institute for Juvenile Research).

1528. Parsons, H. C. [Director.] Juvenile delinquency in Massachusetts as a public responsibility. Boston: Mass. Child Council, 1939. Pp. xii + 196. \$0.50.—A report of the outcome of discussions by committees organized by the Massachusetts Child Council to study six aspects of the problem of juvenile delinquency in Massachusetts: (1) foster-home placement of delinquents, (2) legal aspects of delinquency, (3) provisions for mentally handicapped delinquents, (4) clinical organization and service, (5) responsibility of the schools, (6) institutional treatment of delinquents. The findings of each committee's report are summarized. A chapter describes a demonstration project to reach the pre-delinquent child and offer him services otherwise lacking, by working with troublesome gangs and with social agencies and by supplementing the supervision of cases under the jurisdiction of probation and parole officers. Recommendations are made by each of the six study groups. Appendices list juvenile delinquency statistics, a comparison of approved standards and current methods in different states, and a survey of the juvenile delinquency laws of foreign countries.—*P. S. de Q. Cabot* (Simmons).

1529. Sauer, W. **Criteri nell'applicazione della pena per una lotta efficace contro il reato. Contributo per giustificare il metodo della sociologia criminale.** (Principles on which the judge must base his punishment verdicts in an effort to combat crime efficaciously; a study contributing to the justification of the method of criminal sociology.) *Riv. Diritt. penitens.*, 1939, 10, No. 3.—In order to combat crime efficaciously, the criminal will must be shaken to its core and forcibly transformed into an ethico-social will. This treatment of the delinquent must be initiated in the law court, and the judge must be able to adapt the law to the needs of each individual case. The author believes that the true criminogenic agent is to be found in excessive egoism, which may develop in one of two directions: destruction or violence and avidity for gain. Development goes from acute (primary delinquency) to chronic (habitual and professional delinquency), following the law of criminal biogenesis. If the civilized state really wishes to block the development of delinquency, it must strive to establish a healthy state of morality in the spirit of its people. In any effort to combat crime the author recommends a combination of the specialized methods hitherto used with the universal, sociological method, and he bases his recommendation on the principle that criminal sociology includes criminal biology and criminal, ethical, and social psychology, on which should rest juridical dogma.—*R. Ricci* (Rome).

1530. Schuyler, J. **A study of the unfounded beliefs of defective delinquents.** *J. crim. Psychopath.*, 1939, 1, 127-148.—The unfounded beliefs of 269 institutionalized adult defective delinquents were studied by means of an oral questionnaire. The results are presented with beliefs classified in two ways, are compared with a similar study performed with high-school students, and are analyzed with respect to age, color, education, intelligence, and background, i.e. whether rural or urban. It is found that the older, less educated, less intelligent, and rural delinquents have more misconceptions than do the younger, better educated, more intelligent, urban inmates. Misconceptions relating to items classified under health and psychology are more numerous than for the other classifications.—*A. Chapanis* (Child Guidance Study, Franklin, Tenn.).

1531. Selling, L. S. **Types of behavior manifested by feeble-minded sex offenders.** *Proc. Amer. Ass. ment. Def.*, 1939, 44, No. 1, 178-186.—Sex offenders are not all feeble-minded, nor do they constitute a single homogeneous group, according to a survey of 1078 cases referred to a court clinic. The feeble-minded constitute a part of all classification groups, and study of them shows up differences in behavior due to their mental structure. Their stupidity has a bearing on their offenses. They act in a primitive fashion, uncontrolled by either knowledge or self-acquired training. Tables show the IQ status of the various types of sex offenders, namely cases of indecent conduct, rape, multiple marriage, and offenses against children and animals. Behavior dif-

ferences in these types of sex offenders are described.—*M. W. Kuenzel* (Children's Home, Cincinnati).

1532. Selling, L. S. **Metodi di ricerca della criminologia clinica.** (Methods of research in clinical criminology.) *Riv. Diritt. penitens.*, 1939, 10, No. 3.—After discussing the old methods used in criminological examinations, which are based on a gathering of remembered data, the ordinary psychiatric examination, and psychological tests, the author describes the procedure practised in the clinic at the Recorder's Court, Detroit, Michigan. He describes methods designed to indicate with mathematical precision those delinquents who can be re-educated under a system of supervised liberty and those who must be definitely segregated. He analyzes the Rorschach psychodiagnostic method, the autobiographical method, applications of the Larson polygraph, and the Darrow photopolygraph. He believes that the recent methods which merit the most consideration today are: (1) a combination of the autobiographical method with interrogation and a collection of remembered data; (2) an evaluation of the emotional capacity of the delinquent by a combination of results from the Rorschach ink blots and the polygraph; (3) the use of a battery of standardized tests in the hands of a competent psychologist; and (4) a complete interweaving of all the data by means of a free psychiatric examination restricted to a discussion of the culprit's feelings with respect to the law, order, and consequences of the crime committed.—*R. Ricci* (Rome).

1533. Selling, L. S., & Vaughn, C. L. **Procedimientos técnicos y escollos de los tests psicológicos para criminales.** (Some techniques and pitfalls of psychological tests of criminals.) *Arch. Criminol. Neuropsiquiat.*, Quito, 1938, 2, 321-324.—See XIII: 1627.

1534. Stefanescu-Goanga, F. **La débilité mentale comme cause de délinquance infantile et juvénile.** (Feeble-mindedness as a cause of childhood and adolescent delinquency.) *Rev. Psihol.*, 1939, 2, 221-230.—The intelligence of 273 boys and 36 girls from two reformatories for children was measured. 31% of the boys and 39% of the girls were feeble-minded. The highest proportion (47%) of feeble-minded children occurred among those committed for homicide. Those committed for theft gave 34%, while those accused of less serious offenses gave only 22%. The recidivists gave 50%.—*N. Marginean* (Cluj, Rumania).

1535. Wise, B. O. **Delinquency a mental hygiene problem.** *J. crim. Law Criminol.*, 1939, 30, 353-358.—"We are coming to realize that mental hygiene, more than any other single factor, holds out hope of reducing the penal population. The case histories of the socially recalcitrant and the mentally ill are often surprisingly similar in the violation of the rules of child guidance."—*L. Ackerson* (Illinois Institute for Juvenile Research).

1536. Yen, C. Y. **Crime and punishment in preliterate societies.** *Sociol. World*, 1936, 9, 221-256.

[See also abstracts 1255, 1328.]

INDUSTRIAL AND PERSONNEL PROBLEMS

1537. Alberini, R. *Il fattore uomo.* (The human factor.) *Riv. maritt.*, 1938, 71, No. 7-8, 62-75.—The author considers the possibility of applying the principles of psychotechnics to the navy, and gives the methods in use at present for choosing its personnel. He proposes an application of psychotechnics for solving certain problems and peculiar situations to be found in the marine service.—R. Ricci (Rome).

1538. Andresen, P. H. *Motorlovens §24.* (§24 of the law pertaining to automobiles.) *Ugeskr. Laeg.*, 1939, 101, 1358-1362.—The clinical techniques used by the physicians attached to the courts in Denmark to make judgments about alcoholic intoxication are of rather coarse types, which, while safeguarding the sober, allow many who by other criteria appear obviously affected to pass the test by bracing themselves. Blood analyses are always taken of those injured as well as of the driver of the vehicle involved, but so far this analysis has been used only to supplement the clinical test. Tables give the various alcohol concentrations in the blood of (1) those examined, (2) those found affected by the test, and (3) the percentage of those examined who were found to be affected. The results of various psychotechnical devices are also mentioned. The rate of combustion of alcohol is given, with probability limits. This rate enables the investigator to calculate the blood concentration at the time of accident. Urine analysis is also helpful here. As a result of these investigations it is recommended that those be judged intoxicated who had a blood concentration of 1% alcohol at the time of operating the automobile.—N. J. Van Steenberg (Iowa).

1539. Andresen, P. H., & Sand, K. *Alkohol-paavirkethed i moderne trafik.* (Alcoholic intoxication in modern traffic.) *Ugeskr. Laeg.*, 1939, 101, 1348-1350.—The menace of intoxication in swiftly moving traffic is brought out in an examination of the statistics from the city of Copenhagen collected by the medico-legal institute of the university there. While an affected person may temporarily brace himself, sustained concentration becomes very difficult and slips occur. Of special interest is the report of alcohol content of the blood, which is required after every traffic accident if there is any suspicion of intoxication. Tables show the proportion of such blood content not only in the suspected operators of the vehicles involved, but also of the victim when he was suspected. 44% of the adults examined after sustaining injury showed more than 1% alcohol in the blood. The deduction is made that alcohol is a contributing factor in nearly half of all traffic accidents. It is therefore necessary that an immediate investigation be made after an accident, not only of the driver but of all implicated persons, and that blood analysis be given great weight in medico-legal decisions. It is further pointed out that intoxicated pedestrians are often the cause of

traffic mishaps in which they themselves are not injured.—N. J. Van Steenberg (Iowa).

1540. Argentina, G. B. *Vigilanza psico-fisiologica sui campi di aviazione.* (Psychophysiological vigilance in field work in aviation.) *Atti Med. aeronaut.*, Milano, 1938, 2, 140-147.—R. Ricci (Rome).

1541. Connor, M. A. [Chairman.] *Minimum driver license examination standards.* Washington: American Association of Motor Vehicle Administrators, 1939. Pp. 25.

1542. Connor, M. A. [Chairman.] *Procedure for the minimum standard examination for drivers.* Washington: American Association of Motor Vehicle Administrators, 1939. Pp. 28.

1543. Felix, R. *Munca și aspectul social al psihotehnice.* (Labor and the social aspect of applied psychology.) *J. Psihotek.*, 1939, 3, 81-88.—Applications of psychology to vocational guidance and to scientific management of labor are followed by very important changes in the performance of labor and in its social aspect. French summary.—N. Marginean (Cluj, Rumania).

1544. Gallego, J. D. *Orientación y selección profesional en Córdoba durante la guerra.* (Training and occupational selection in Cordoba during the war.) *Psicotecnia*, 1939, 1, 16-39.—The study was made in an attempt to develop a program for training and selecting workers for the chief occupations in Cordoba during the war. The program included a study and classification of students according to the training offered in trade schools, lists of these groups and of the most important professions, requirements for admission to the schools, professional training, especially of those not in school and of cripples. The general examination, which is discussed fully, includes both physical and psychometric tests. At the end of the examinations, the following data are made available: vocation, physical record, intelligence rating, special conditions, professional choice, aptitude for study in school, and general observations. Other studies carried on at the same time are reported: the selection of trade apprentices, and the gathering of psychophysical data on children of Cordoba (predisposition to hernias, occurrence of visual defects, relation between health and intelligence, and the mode of living).—J. E. Bader (Letchworth Village).

1545. Gemelli, A. *Spreco dell' energia umana.* (The dissipation of human energy.) *Atti Sprechi e Recup.*, Torino, 1939.—R. Ricci (Rome).

1546. Gemelli, A. *Indirizzi e ricerche nello studio della patologia dei piloti d'aviazione.* (Indications and research in the pathology of aviators.) *Riv. Med. aeronaut.*, 1938, No. 3-4. Pp. 31.—The author discusses aviation data the importance of which has recently been more and more emphasized by students of aeronautic medicine. His own observations show that flying at even low altitudes (between 3500 and 4000 m.) several times daily for several consecutive days has effects on aviators, bringing about a state of weakness which is clearly manifested in the subject's psychological activity.

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Factors causing these signs of weakness are: cold, vibrations, noise, and acceleration. To demonstrate this weakness, the aviator needs to fly only a half-hour twice daily, at a height of 4000 m. or more, for about ten days. Although acclimatization occurs in persons habitually living at high altitudes, this does not happen in the case of aviators. The author cites further experimentation and arrives at the following practical conclusions: (1) the number of daily flights should be limited (to a number to be determined); (2) when daily flights are necessary above 3500 m., oxygen tanks on the Mosso formula should be obligatory as well as regulation masks; (3) instrument boards should be divided into convenient quadrants for elimination of attention fatigue; and (4) an elimination should be made as far as possible of noise and vibrations, with an adoption of constant temperature and humidity controls.—*R. Ricci* (Rome).

1547. Hack, —. *Tragik im Leben übersehener Farbenuntüchtiger*. (Tragedy in the lives of persons whose color blindness was overlooked.) *Reichsbahn*, 1939, 3, No. 1.—Cases of persons who were passed as normal in color vision and later excluded from their vocation on the ground of color blindness.—*D. M. Purdy* (Mills).

1548. Lottig, H. *Neurologische und psychologische Erfahrungen aus der Luftfahrtmedizin*. (Neurological and psychological experiences in aviation medicine.) *Fortschr. Neurol. Psychiat.*, 1939, 11, 441-454.—The author of the present article is the chief of the sanitation department of the German air force. He presents a review of many publications dealing with the applications of medical and other scientific findings to the field of aviation. Among the topics which are discussed are the influence of acceleration, the selection of fliers, and the possibility of protection against accident. The studies are varied, having reference to neurology, physiology, and psychology. Psychological studies include experiments on attention, speed of reaction, and fluency at high altitudes. Experimental data concerning the effects of sleep, alcohol, and nicotine are also described. Bibliography.—*D. S. Oberlin* (Delaware State Hospital).

1549. Marulli, A. *Psicotecnica e aviazione*. (Psychotechnics and aviation.) *Riv. Med. aeronaut.*, 1939, 2, 113-131.—The author discusses, in all their present-day complexity, the manifold aeronautic activities involved in the specialization of work in aeronautics. He takes up in more detail the professional training of pilots and examines the principal aptitudinal characteristics which must be noted in enlistment examinations. These characteristics are based on a psychological analysis of the profession and a knowledge of the factors which govern the psychological personality during flight. In conclusion he discusses the Italian codification of the main guiding criteria covering pilot specialization in the various fields of modern aviation.—*R. Ricci* (Rome).

1550. Ponzo, M. *I ricercatori di fronte alla personalità del lavoratore ai fini dell'autarchia*.

(Students of research on the personality of workers with autarchy as the end in view.) *Riv. Lavoro*, 1939, 17, No. 7. Pp. 2.—For an adequate study of a worker, it is necessary to know his personality, to be able to train him, and to adapt the job environment to his mentality. In order to attain this end, use should be made of the psychological institutes in the Italian universities, in which the field of psychotechnics will be found very useful for a disclosure of the participation of the human factor in situations where the technical elements appear to be predominant.—*R. Ricci* (Rome).

1551. Presgrave, R. *Effort rating*. *Advanced Management*, 1939, 4, 126-133.—Adjustments of recorded timings in time and motion study are commonly made by one of four methods: (1) Use of mathematical formulae. This assumes consistency of individual production, but this is vitiated by individual daily variation and by the condition, uniformity, and position of raw materials. (2) Comparison with standardized times for basic bodily movements. The practical value of this is nil because of the presence of non-standard elements and because no attempt is made to locate the exact position of time standards within the working range of human effort. (3) Levelling. Under this method four elements are given different rating levels, all of which are vague guesses; neither "consistency" nor "conditions" can be transmuted into constant equivalents; "skill" can be handled intelligently only by method analysis, and effort merits better evaluation than a judgment of 30% variation between poor effort and killing effort. (4) Effort rating. This would better be called tempo, and is the only factor in time study that provides a logical basis for mathematical equivalents. Estimates of it must be made by comparing it with speed levels, and by establishing acceptable percentage levels above and below standard.—*H. Moore* (Mt. Holyoke).

1552. Puertas, N. *Orientación y colocación profesional de mutilados de guerra*. (Training and professional employment of the war crippled.) Santiago de Compostela: Librería Gali, 1939. Pp. 215.—The book is concerned with the problem of rehabilitation of the crippled and wounded of the Spanish war. The author outlines approaches to the study of the problems of: (1) medical, legal, and psychological assistance; (2) vocational reorientation; (3) re-education; (4) methods and means and their availability. There is a discussion of the present state of these problems and their significance in the socio-economic state of Spain.—*J. E. Bader* (Letchworth Village).

1553. Vincent, M. J. *Employers' cooperative attitudes*. *Sociol. soc. Res.*, 1939, 24, 33-42.—A presentation of activities of some industrial leaders which reveal the development and presence of cooperative attitudes on part of the employer group toward labor.—*O. P. Lester* (Buffalo).

1554. Zissulescu, S. *Preocupările psihotehnice în Germania actuală*. (Applied psychology in contemporary Germany.) *J. Psiholeh.*, 1939, 3,

89-94.—A review of the applications of psychology in vocational guidance and scientific management of labor in Germany. The main interests seem to be: (1) vocational guidance, (2) best methods of training, (3) an integral conception of labor, which opposes too much division and specialization, and (4) a healthful conception of life. French summary.—*N. Marginean* (Cluj, Rumania).

[See also abstracts 1153, 1155, 1581, 1624.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

1555. [Anon.] *Liste des classes de perfectionnement du département de la Seine.* (List of special classes in the Seine district.) *Soc. A. Binet*, 1939, 39, 103-104.—There are 70 special classes in the Seine district, of which 46 are for Paris alone (23 for boys and 23 for girls) and 24 for the suburbs—the Institute for Deaf and Dumb Children at Asnières numbering 6 classes for boys (4 elementary classes and 2 for apprenticeship) and 4 classes for girls (3 elementary and 1 for apprenticeship).—*C. Nony* (Sorbonne).

1556. Benari, L. *Diagnosticarea aptitudinei pentru matematică prin teste.* (The measurement of ability for mathematics by tests.) *J. Psihoteh.*, 1939, 3, 137-147.—The Kuhlmann-Anderson test was applied to 85 subjects in order to diagnose their ability for mathematics. The results were compared with school records, and showed agreement in 70%. French summary.—*N. Marginean* (Cluj, Rumania).

1557. Bookwalter, K. W. *A critical evaluation of some of the existing means of classifying boys for physical education.* *Res. Quart. Amer. Ass. Hlth. phys. Educ.*, 1939, 10, 119-127.—It is desirable to classify physical education students so that homogeneity in athletic performance, size, and maturity is obtained. Study of intercorrelations indicates that the following criteria should be used at the various institutional levels: elementary school, strength index; junior high school, strength index thirds with secondary grouping by MacCurdy's physical capacity index; senior high school, strength index; college, force index with secondary grouping by strength index.—*F. W. Finger* (Brown).

1558. Bragdon, H. D., & others. *Educational counseling of college students.* Washington: Amer. Council on Education, 1939. Pp. 66. \$0.50.

1559. Bramhall, E. W. *An experimental study of two types of arithmetic problems.* *J. exp. Educ.*, 1939, 8, 36-38.—The evidence from this study shows that there is no statistically significant difference between the effectiveness of the conventional and imaginative types of arithmetic problems in improving problem-solving ability of 6th-grade pupils.—*H. W. Karn* (Pittsburgh).

1560. Bunting, J. R. *Counseling alters pupils' choice.* *Occupations*, 1939, 18, 174-176.—Original vocational choices of 375 10th-year students were

not realistic in that too many of them were for the professions. After some group discussion and individual reading a larger proportion of the students were planning business careers, and the distribution of preferences became more nearly like that of available jobs.—*H. Schlosberg* (Brown).

1561. Cheni, P. *Il criterio medico psicotecnico nella valutazione della capacità al lavoro dei minorati.* (The medico-psychotechnical criterion in evaluating the capacity of adolescents for work.) *Boll. Ass. med.*, Trieste, 1939, 30, No. 3. Pp. 15.—*R. Ricci* (Rome).

1562. Cowley, W. H., & others. *Occupational orientation of college students.* Washington: Amer. Council on Education, 1939. Pp. 81. \$0.50.

1563. Cramer, B. B. *Following-up high school graduates.* *Occupations*, 1939, 18, 182-186.—This paper presents and discusses the results of occupational surveys of 564 people who graduated from a small Missouri high school during the period 1923-1937. An attempt is made to analyze certain factors involved in occupational adjustment.—*H. Schlosberg* (Brown).

1564. Davis, L. F. *Visual difficulties and reading disability.* *Suppl. educ. Monogr.*, 1939, No. 49, 135-143.—Although statistical studies have shown that there are as many visual defects among good readers as among poor readers, such analysis does not take into account compensatory factors. Visual factors which account for lack of visual memory for words, fatigue, and confusion in seeing or reproducing correct letters within a word in the left-to-right order are discussed.—*S. A. Kirk* (Milwaukee Teachers College).

1565. Dearborn, W. F. *The nature and causation of disabilities in reading.* *Suppl. educ. Monogr.*, 1939, No. 49, 103-110.—There are numerous causes of reading disability. Although some experimenters have discarded many of the structural causes, the author continues to find evidence substantiating the hypothesis that left ocular or manual dominance is found more frequently among retarded readers than among superior readers. Among the visual defects, aniseikonia is found in about 50% of the poor readers. That it is not an insurmountable handicap is suggested by data showing that it exists in 23% of the good readers.—*S. A. Kirk* (Milwaukee Teachers College).

1566. Dearborn, W. F. *Remedial reading: case histories and recent experimentation.* *Suppl. educ. Monogr.*, 1939, No. 49, 110-118.—Case studies of children with reading disabilities reveal that some overcome the disability, while others do not completely do so. The histories of many of them reveal continual changing of tutors and schools. Methods of remedial instruction are evaluated in terms of their success in certain situations. Training eye movements as a remedial method is defended.—*S. A. Kirk* (Milwaukee Teachers College).

1567. Dyer, J. T., Schurig, J. C., & Apgar, S. L. *A basketball motor ability test for college women*

and secondary school girls. *Res. Quart. Amer. Ass. Hlth. phys. Educ.*, 1939, 10, 129-147.—The construction of a test battery for the motor aspects of basketball ability is described. Four tests were used in the final form: moving target, Edgren ball handling, bounce and shoot, and the free jump and reach test. Statistical analysis revealed that the battery is "a valid, reliable, and objective measure of basketball motor ability of college women and secondary school girls."—F. W. Finger (Brown).

1568. Eaton, M. T. The value of the dictaphone in diagnosing difficulties in addition. *Bull. Sch. Educ. Ind. Univ.*, 1938, 14, No. 4, 5-10.—Records were made of the verbalizations of 5 subjects in solving various addition problems. Analyses of errors made were the basis for remedial practice, after which further recordings were made. The subject also listened to the record to discover his own errors. The conclusion is that the dictaphone recordings have very definite value in the diagnosis and treatment of arithmetic disabilities.—C. M. Louttit (Indiana).

1569. Franc, G., & Néron, G. Jeu de l'escalier arithmétique. ("The staircase," a game for teaching arithmetic.) *Soc. A. Binet*, 1939, 39, 90-94.—11 rulers of graded lengths, measuring from 10 to 20 cm, are divided into 3 divisions giving the length (1) in cm (e.g. 14 cm), (2) as $10 + n$ units (e.g. $10 + 4$), and (3) in units (e.g. 14 units of 1 cm each); these are used for teaching addition and subtraction combinations.—C. Nony (Sorbonne).

1570. Fredenburgh, F. A. Guidance becomes of age. *Sch. & Soc.*, 1939, 50, 725-727.—Guidance practitioners often do not define to themselves clearly their fundamental theoretical position. 6 broad categories of fundamental theory have developed through the past century. First, guidance was considered to be enlightened self-direction; then, in the presence of post-war unemployment of youth, individualized education itself was guidance, a mediating function. Third, guidance is making choices in a free industrial society, and then guidance is distribution and adjustment in relation to vocational opportunities. From the personnel service comes the idea that guidance is a facilitation of educational aims through conferences and personal help, and finally there is the clinical approach to guidance, using a refined methodology of tests and case histories. Some choice between these positions should be made by counselors of youth if the concept is to grow.—M. Lee (Chicago).

1571. Freeman, G. L. Developing requisite skills. *J. higher Educ.*, 1939, 10, 479-483.—After discussing some of the philosophical and educational implications of an individual's performance or level of achievement as affected by the kind of goal or level of aspiration, the author presents certain personal observations based upon statistical data gathered in one of his courses. Improvement of techniques over a period of four or five years suggests that individual students were stimulated to increase effort and achievement under a raised

aspiration level. The problem of assigned grades is discussed with the thought of having the instructor "assure a passing mark to every student who shows a reasonable improvement in the final mastery of bare essentials." Emphasis must be given not only to goodness or poorness of the present performance but also to how much it can be improved. From this point of view initiative is not destroyed and powerful incentives are added.—R. A. Brotemarkle (Pennsylvania).

1572. Galdo, L. L'educazione nel dominio dell'evoluzione organica, intellettuale ed affettiva. (Education and the field of organic, intellectual, and affective evolution.) *Studium*, 1939, 29, No. 6, 18.—R. Ricci (Rome).

1573. Galdo, L. L'orientamento professionale e la "Carta della Scuola." (Professional orientation and the "Carta della Scuola.") *Studium*, 1939, 29, No. 8, 16.—R. Ricci (Rome).

1574. Gardner, W. H. Hearing surveys and school adjustments. *J. except. Child.*, 1939, 6, 55-60.—The paper presents general conclusions from a 2-year survey of more than 100,000 hard-of-hearing children in the schools of Iowa and Indiana carried on by clinics originating in the respective state universities. It is found that hard-of-hearing children fall into five groups: (1) those with minor losses; (2) those with moderate losses, justifying special seating; (3) those needing special medical attention and lip-reading instruction; (4) those who from lack of special education are progressing too slowly in the schools; and (5) the profoundly deafened or deaf-mutes. The technique of testing is described, and the opportunities in case study of all such children are discussed.—L. A. Averill (Worcester Teachers College).

1575. Glenn, E. D., & Mead, A. R. A study of pupil initiative and coöperation; a study of individual children in social relations, data gathered from 25 schools concerning over two thousand seventh grade pupils. *Bur. educ. Res. Bull., Univ. Fla.*, 1939, No. 11. Pp. 36.—The authors present the results of a study of pupil initiative in which data were obtained by means of teacher and pupil anecdotal records, teacher-judgment rating scales, and notes of personal interviews and observations.—(Courtesy *J. educ. Res.*)

1576. Grant, A. The development of a spelling test for use in second grade. *J. exp. Educ.*, 1939, 8, 87-88.—In selecting items for this 50-word spelling test the following aims of spelling instruction were used as criteria: (1) meeting the pupils' spelling needs as these occur in their written work; (2) developing in pupils a mastery of some of the basic words which it is important for children to know how to spell. Results of the test for over 4000 2nd-grade pupils are described.—H. W. Karn (Pittsburgh).

1577. Gregory, W. S. From high school to college. *Occupations*, 1929, 18, 190-198.—500 freshmen in the College of Arts and Sciences of the University of Nebraska listed the high school courses they had found most interesting, least interesting, easiest,

and hardest. These judgments were then tabulated for students with similar vocational aims. The resulting patterns were consistent, and showed the relationships usually supposed to exist. This shows that interest and ease reported by a student for his high school courses furnish valuable clues for vocational counseling. The data are presented and treated in considerable detail in the paper.—*H. Schlosberg* (Brown).

1578. **Harea, V.** *Examenul de bacalaureat și fișa individuală.* (Baccalaureate examination and individual record.) *J. Psihoteh.*, 1939, 3, 95-97.—The rule has been introduced in Rumania that at the final examination the candidate's record, including his psychological aptitude scores as well as his scholastic marks, shall be offered in evidence; and this rule has already proved its usefulness in eliminating invalid inequalities.—*R. R. Willoughby* (Brown).

1579. **Harris, N. H.** *A brief historical sketch of the Negro public high school of North Carolina.* *J. educ. Res.*, 1939, 33, 286-292.—The author indicates the increase in the number of Negro high schools in North Carolina, the increase in the size of the student bodies, and the increase of funds available for this sort of education since 1917, when the first Negro high school was authorized in the state.—*S. W. Fernberger* (Pennsylvania).

1580. **Heilman, J. D.** *Student employment and student class load.* *J. educ. Psychol.*, 1939, 30, 527-532.—Negligible correlations were found between college marks and employment for 390 college freshmen. Groups of employed boys and girls received marks equal to those of the unemployed groups. Rules for restricting class load of employed students are not justified at the college studied.—*R. M. Bellows* (Maryland).

1581. **Horton, S. P.** *An objective approach to group-influencing fields.* Hoboken: Human Engineering Laboratory, Inc., 1937. Pp. 106.—According to the results of a testing program, men who are successful in group-influencing fields such as advertising and journalism possess in common the aptitudes of inductive reasoning, creative imagination, objective personality, and limited structural visualization. Other special aptitudes are possessed by individuals in particular branches of these fields. Some of these special aptitudes are accounting aptitude, art appraisal, uniform distribution of aptitudes, large English vocabulary, tweezer dexterity, finger dexterity, tonal memory, observation, number memory, and certain other traits. This publication (for the testees rather than the scientific audience) contains descriptions of the tests employed in measuring these basic and special aptitudes, an analysis of the results, and an account of their application to vocational guidance and selection in this field.—*R. M. Gagné* (Brown).

1582. **Johns, W. B.** *The growth of vocabulary among university students, with some consideration of methods of fostering it.* *J. exp. Educ.*, 1939, 8, 89-102.—The studies reported in this article point

toward the following conclusions: (1) Advanced college students acquire about half of the vocabulary of their subjects under ordinary class procedure, and may acquire three fourths under a program where impending tests are used to motivate the learning of vocabulary. (2) Freshmen, under a program emphasizing vocabulary but not motivated by a testing program, will know about 40% of the technical words of a new subject. (3) Freshmen in arts and science and in teachers' college, in the ordinary course of a semester's work, grow to the extent of about 13 words in a list of 80 of the type of words represented by the Ohio State University psychological test, part I. (4) The higher the native ability of college students, the higher the vocabulary ability and the more extensive the gains during the college period. (5) The effect of growth in vocabulary due to stimulation by a special method in a special subject does not carry over very largely to the acquisition of a general vocabulary. (6) Errors may be classified into a number of categories, the apparent reasons for which are faulty visual imagery, faulty auditory imagery, poor or careless reading, failure to appreciate the evident, evasion, or any combination of these.—*H. W. Karn* (Pittsburgh).

1583. **Johnson, J. T.** *Principles of adjustment in mathematics.* *J. educ. Res.*, 1939, 33, 253-257.—A discussion of how the "equal-additions principle of adjustment" can be applied to both mixed-number and denominate-number subtraction is illustrated by some examples.—*S. W. Fernberger* (Pennsylvania).

1584. **Kellar, W. R.** *The relative contribution of certain factors to individual differences in algebraic problem-solving ability.* *J. exp. Educ.*, 1939, 8, 26-35.—To determine the relative contributions of a group of variables to ability in solving verbal algebra problems, a battery of tests was administered to 284 pupils who had completed one year of high school algebra. Analysis and statistical treatment of the scores yielded the following results: (1) From 35 to 42% of the variance in problem-solving ability is due to variance in computation ability. (2) From 14 to 16.5% of the variability in algebra problem-solving ability is due to variance in arithmetic problem-solving ability. (3) When the three variables of algebra verbal problem solving, algebra computation, and arithmetic problem solving are combined with each of a number of remaining variables in turn, the variance in algebra problem solving is (1) 7% due to variance in intelligence, (2) 9% due to variance in algebra vocabulary, (3) 7% due to variance in reading, (4) 6% due to variance in algebra analysis, (5) 2% due to variance in memory, (6) 0.6% due to variance in arithmetic computation.—*H. W. Karn* (Pittsburgh).

1585. **Kunkel, B. W., & Prentice, D. B.** *The colleges' contribution to intellectual leadership.* *Sch. & Soc.*, 1939, 50, 600-608.—The study made 10 years ago of college representation in *Who's Who in America* is brought up to date. Since 1900 there has been a steady increase, from 70 to 86%, in the

proportion of college graduates among those included. 9 privately endowed universities with 200 representatives each in the present *Who's Who* have gained 8.4% in 10 years, but 29 state-supported universities and colleges represented by 20 names each 10 years ago have gained 18.5%. 71 liberal-arts colleges have gained 21.2%, and technical schools have suffered a loss. 5 women's colleges with 20 representatives 10 years ago gained only 1.9%. The greatest gain has been in the Pacific coast states and the least in New England. The highest percentage of living alumni (2.20%) included in *Who's Who* is still from the endowed universities, although in 10 years they have suffered the largest decline in percentage. Next is the endowed liberal-arts colleges (1.99) and technical schools (1.65).—*M. Lee* (Chicago).

1586. Lannholm, G. V. **The measurement of ability in capitalization and punctuation.** *J. exp. Educ.*, 1939, 8, 55-86.—The bulk of this article is devoted to an evaluation of 15 different types of objective capitalization and punctuation tests. The principal factors considered in the evaluation are validity, reliability, and time required for administration. In addition, two factors related to the measurement of punctuation ability are investigated. One of these deals with the importance of the proof-reading factor in an objective test in punctuation. The other deals with the effect of pupil practice upon the validity of a new type of objective test in punctuation.—*H. W. Karn* (Pittsburgh).

1587. Laroche, —. **La psychanalyse à l'école.** (Psychoanalysis at school.) *Ann. Enfance*, 1939, 123, 16-20.—The teacher has the advantage of being in daily touch with the child, which enables him to know the latter well and to win his confidence in a natural and almost casual manner. But the teacher has no training in psychotherapy, and will be wise to limit himself to the identification of neurotic children and to the recording of their favorite games, dreams and day-dreams, drawings, modeling, and stories, which all give indications of the cause of their neuroses. But he is not qualified to attempt more, and to do so would be dangerous.—*C. Nony* (Sorbbonne).

1588. Lawes, E. **Science and sight conservation.** *J. except. Child.*, 1939, 6, 42-48.—While continual improvement is being made in the scientific study of problems associated with sight-saving classes, notably those involving eye movement, size of type, achievement testing, manuscript writing, illumination of rooms, color or paper, chalk, maps, etc., sight-conservation classes may be said to be still in the kerosene-lamp stage. Most administrators and supervisors of these classes have their own individual convictions, but too few of these have been adequately investigated. It is recommended that scientific research into some of the more typical problems relating to the real conservation of vision in these classes be carried on to a degree much greater than has been the case thus far.—*L. A. Averill* (Worcester Teachers College).

1589. Lawson, E. K. **Reading comprehension among college students.** *J. exp. Educ.*, 1939, 8, 103-109.—Silent reading comprehension can be improved by training during one semester in a course in psychology. This fact has been demonstrated by a comparison of initial and retest scores on the Iowa silent reading test and by a comparison of results from initial tests and retests given to an experimental group with the results from testing a control group. The Betts visual sensation and perception tests are an aid in a remedial reading program in that they reveal the need for further eye examinations. Ophthalmograph tests supply valuable objective information which is not furnished by pencil-and-paper reading tests. Evidence of regressions, lengthy fixations, and unevenness of reading helps the student to understand his reading problem. The graph gives the instructor assistance in developing an individualized remedial program. Emphasis upon the improvement of reading comprehension does not impede improvement in the rate of reading. This fact is demonstrated by the gains shown on the rate-of-reading test in the Iowa silent reading test.—*H. W. Karn* (Pittsburgh).

1590. Ligon, E. M. **Their future is now.** New York: Macmillan, 1939. Pp. xv + 369. \$3.00.—The principles of positive mental hygiene supply the basis for this elaborate program of Christian character education of youth, which has been tested for a period of three years in the Union-Westminster character research project. The goals of a purposive Christian character education are embodied in 8 ideals of personality development implicit in the Beatitudes of Jesus' Sermon on the Mount. An analysis of each ideal reveals the component specific attitudes which are to be sought in the development of the quality. These habits are to be adapted to the appropriate age levels in human growth in conformity with the dominant psychological characteristics of the period. To evaluate the status and progress in development of the individual toward the goals of character education, personality examinations devised for each level are available for constructing the personality profile. Chapters V to XIV discuss growth toward the realization of the trait goals from the years of infancy through maturity, using 2-year divisions up to the high school age in the treatment of the developmental sequence. A selected bibliography of 22 titles is included. There is also available a separate comprehensive chart outlining the personality goals and the methods for realizing them at all of the age levels.—*R. C. Strassburger* (St. Joseph's College).

1591. Lurie, W. A. **Estimating the level of vocational aspiration.** *J. soc. Psychol.*, 1939, 10, 467-473.—Barr ratings were applied to the answers to the question: "What have you often thought you would like to do for a living?" These ratings correlated .56 with Barr ratings on answers to the question: "What occupations do you want more information on?" and .21 with ratings of occupations the subjects were trying to enter at the time of questioning.—*G. Brighouse* (Occidental).

1592. Maneval, R. V. The relative value of sound motion pictures and study sheets in science teaching. *J. exp. Educ.*, 1939, 8, 39-43.—In this experiment the sound motion picture and study sheet methods were compared as to their effectiveness for direct teaching of general science. Objective test results for immediate recall, delayed recall, and immediate recall after reteaching showed that pupils of higher mental ability tend to be taught more effectively by the study sheet method; the average group seems to be taught equally well by either method; and pupils of lower mental ability tend to be taught more effectively by the sound film method.—H. W. Karn (Pittsburgh).

1593. Melcher, G. The measurement program in a city school system. *Bull. Sch. Educ., Ind. Univ.*, 1938, 14, No. 4, 11-18.—A description of the work of the bureau of research of the Kansas City public schools, including intelligence and achievement testing classification, and the study of atypical and problem children.—C. M. Louttit (Indiana).

1594. Melcher, G. Relationship between a measurement program and a guidance program. *Bull. Sch. Educ., Ind. Univ.*, 1938, 14, No. 4, 22-32.—A continuation of the description of work in the Kansas City schools, with special emphasis on vocational guidance. The basis of the guidance program is measurement.—C. M. Louttit (Indiana).

1595. Merrill, A. S. Measurements of teaching. *J. higher Educ.*, 1939, 10, 431-436.—Achievement tests were employed at the Montana State University in connection with a course (introduction to physical science) to compute an index of relative improvement and discover whether certain students might be exempted from the course. All correlations are very low and show no relationship with preparation in the course. Improvement shows a "moderate correlation" with intelligence as inferred from the American Council psychological test. Benefits derived from pursuing the course "cannot be disclosed by such a statistical study."—R. A. Brotemarkle (Pennsylvania).

1596. Moore, C. C. The relation of teachers' marks to standardized tests. *J. exp. Educ.*, 1939, 8, 49-50.—The data of this study point to the conclusion that standardized intelligence and achievement tests do not measure the same objectives that receive emphasis when teachers award marks based upon their judgment of the pupil's growth, as modified by the results of classroom tests.—H. W. Karn (Pittsburgh).

1597. Mosier, C. I. Florida state-wide testing program. New York: International Business Machines Corporation, 1939. Pp. 5.—An account of the high school testing program in Florida, in which the following tests are administered to 10,000 high school seniors: Henmon-Nelson intelligence test, Cooperative Test Service achievement examinations in English, social sciences, natural sciences, and mathematics, and achievement tests in French, Spanish, and Latin. The examination procedure, test scoring procedure, and accounting procedure are

described. The latter two operations require the use of machines, the most important of which are a test-scoring machine, a card-counting sorter (which sorts cards in score order), and an alphabetical accounting machine.—R. M. Gagné (Brown).

1598. Nemzek, C. L., & DeHeus, J. H. The prediction of academic and non-academic marks in junior high schools. *Sch. & Soc.*, 1939, 50, 670-672.—150 boys in grade 8A, in four junior high schools where shop work is required, were given the Detroit mechanical aptitude examination, Detroit Alpha group intelligence test, and Metropolitan achievement test A. The correlations between all these test scores and industrial arts honor-point averages were negligible, though they correlated .49-.63 with success in academic subjects. The achievement score alone has the greatest predictive value for academic marks, but none of these variables are valid indices for success in non-academic subjects.—M. Lee (Chicago).

1599. Nestor, I. M. Organizarea laboratoarelor psihologice in scoala. (The organization of psychological laboratories in schools.) *J. Psihoteh.*, 1939, 3, 105-125.—A plan concerning the organization of psychological laboratories in public, secondary, and professional schools, followed by a list of tests and psychological apparatus necessary for the examination of children's personalities. The head of the laboratory should be a psychologist, and the methods ought to be the same for the whole country. French summary.—N. Marginean (Cluj, Rumania).

1600. Occupational Index, Inc. Occupational index, 1939. New York: New York Univ., 1940. \$6.50.

1601. Oppenheimer, J. J. Entrance to the senior college. *J. higher Educ.*, 1939, 10, 445-447.—The University of Louisville has attempted to devise a weighted formula for selective admission. The study was based on 267 continuing students and 235 dropped for poor scholarship. The formula employed would be 74% efficient. A faculty committee of the senior college administers a selective process (based on junior college work and testing) admitting certain students unconditionally, others conditionally, and restricting others to junior college or the general curriculum until they have cleared their conditions. Approximately 50% are admitted unconditionally, 25% each conditionally and restricted. Some differences appear in the college achievement test results of these groups; however, the results are too meager for any final conclusions. Students of superior mental ability have no difficulty "in getting through the selective sieve at the end of the sophomore year." The study will continue.—R. A. Brotemarkle (Pennsylvania).

1602. Osborn, W. W. An experiment in teaching resistance to propaganda. *J. exp. Educ.*, 1939, 8, 1-17.—The unit of instruction, *Public Opinion and Propaganda*, was suitable for use in 11th- and 12th-grade social studies classes with respect to its interest appeal, range of difficulty, and organization. Even though there was evidence that pupils in an experi-

mental group did develop an increased awareness of the methods of propaganda, the objective standard of effectiveness used showed that the study of the unit of instruction was not effective in developing resistance to propaganda. Other conclusions of the study are as follows: (1) Attempts to teach resistance to propaganda with respect to social issues by emphasis only on the "form" in which propaganda appears will be unlikely to succeed. (2) Attitudes toward social issues can be shifted in a predetermined direction by means of propaganda in the form of a literary selection even when careful study of methods of resisting propaganda has been completed by the pupils less than one month prior to their being subjected to such propaganda. (3) Measures of knowledge concerning a social issue are inadequate for use in predicting which extreme of the issue pupils will tend to favor. The same conclusion holds for measures of intelligence.—*H. W. Karn* (Pittsburgh).

1603. Pond, F. L. A qualitative and quantitative appraisal of reading experiences. *J. educ. Res.*, 1939, 33, 241-252.—Two inventories were constructed and the items weighted by the Thurstone technique for different categories within each inventory. A total of 280 responses over a 4-week period were obtained from 363 12th-grade and 241 9th-grade pupils. The reliability of each inventory is sufficiently high for individual diagnostic use. Differences among four year-levels indicate highly significant and coincident gains in the quality of reading, literary acquaintance, and reading mechanics. The differences in the quantity of reading were not so great as those in the quality for these age groups.—*S. W. Fernberger* (Pennsylvania).

1604. Ponzio, M. Corsi per insegnanti sui problemi dell'orientamento professionale. (Courses for teachers on the problems of professional orientation.) *Istruz. tecn.*, 1939, 2, No. 6. Pp. 14.—The article consists of 6 lectures for teachers on the problems of professional orientation, in which detailed instruction is given based on "La Carta della Scuola." The author points out that the educator must be acquainted with methods for determining the aptitudes of his pupils. A knowledge of the children's abilities and personalities as related to the work environment and their physical education is indispensable. Finally, the teacher must be able to evaluate the indications of particular mental tendencies in the children, tendencies which may be developed and which may point to a particular field of study.—*R. Ricci* (Rome).

1605. Ransom, K. A. A study of reading readiness. *Peabody J. Educ.*, 1939, 16, 276-285.—The Metropolitan reading readiness test was given to 263 children in Atlanta schools. The results revealed a wide range of scores and showed that 33% of the children entering the first grade were not ready to begin reading.—*N. B. Cuff* (Eastern Kentucky).

1606. Robinson, H. M. Types of deficient readers and methods of treatment. *Suppl. educ. Monogr.*, 1939, No. 49, 159-169.—A reading research committee, composed of a reading specialist, a psycholo-

gist and reading technician, a social worker, a psychiatrist, a pediatricist, a neurologist, an eye specialist, an ear, nose, and throat specialist, a speech specialist, and an endocrinologist, studied 18 cases of reading disabilities. Usually a constellation of causes was found in each case, but one cause can usually be selected as apparently more important than others. When physical conditions are found and treated, and progress results, it is not known whether the progress is due to the correction of the physical cause or to the psychological effect of the correction. The study is being continued with more cases.—*S. A. Kirk* (Milwaukee Teachers College).

1607. Schoenchen, G. G. Eduard Burger and John Dewey: a comparative study of Burger's Arbeitsschule and contemporary American activity schools as representative of Dewey's educational philosophy. *J. exp. Educ.*, 1939, 8, 51-54.—*H. W. Karn* (Pittsburgh).

1608. Seashore, C. E. A note on the teacher's job. *Sch. & Soc.*, 1939, 50, 724-725.—A useful teaching method used by the author is to ask students to hand in 5 thought questions on each reading assignment. These must be relevant, and can be graded as to the originality and critical thought they embody. The best then furnish a basis for class discussion the following period.—*M. Lee* (Chicago).

1609. Sherman, M. Emotional disturbances and reading disability. *Suppl. educ. Monogr.*, 1939, No. 49, 126-134.—Emotional factors resulting from failure inhibit the process of learning. Those working in the field of reading disabilities should recognize the interrelationship between emotional disturbances and reading difficulties. Before remedial instruction is instituted the child must be made ready in terms of his motivation, his interest, and his ability to attend to the reading situation. In some cases psychiatric therapy must precede instruction.—*S. A. Kirk* (Milwaukee Teachers College).

1610. Shouse, J. B. College grades mean something. *J. educ. Psychol.*, 1939, 30, 510-518.—Evidence shows that teachers give more dependable grades than is usually supposed.—*R. M. Bellows* (Maryland).

1611. Southwick, A. E. An occupational survey of Wooster graduates, 1926-1933. *Occupations*, 1940, 18, 266-273.—Returns from 697 alumni and alumnae of a church college are compared with the Purdue, Minnesota, and U. S. Office of Education surveys. The Wooster group showed a larger amount of postgraduate work. About half of the graduates followed their undergraduate occupational plans. Many of the returns stressed the need for more guidance.—*H. Schlosberg* (Brown).

1612. Thompson, R. Discovering arithmetic. *Peabody J. Educ.*, 1939, 16, 271-276.—*N. B. Cuff* (Eastern Kentucky).

1613. Tinat, H. Examen d'instruction à l'admission d'un enfant dans une classe de perfectionne-

ment. (Attainment scale to be used as entrance examination for special classes.) *Soc. A. Binet*, 1939, 39, 95-102.—Includes an 11-page booklet for the examinee.—*C. Nony* (Sorbonne).

1614. **Todoran, D.** *Temeliile educatiei*. (The basis of education.) *Rev. Psihol.*, 1939, 2, 253-282.—A brief introduction to the psychology of education, stating the main problems.—*N. Marginean* (Cluj, Rumania).

1615. **Toogood, R.** A survey of recreational interests and pursuits of college women. *Res. Quart. Amer. Ass. Hlth phys. Educ.*, 1939, 10, 90-100.—3400 women in 12 colleges were given questionnaires covering the use of their spare time. It was found that: (1) Although greatest participation is in indoor and inactive forms of recreation, the desire is expressed for the more active outdoor sports. (2) The activities desired by the greatest number are individual activities adapted to use in mixed recreation; they are primarily those which would be available only if provided for by the institution. (3) Whether or not the student lives at home seems to have little effect upon the character and extent of recreation. (4) No definite relationships are evident between recreation and hours of work.—*F. W. Finger* (Brown).

1616. **Ulmer, G.** Teaching geometry to cultivate reflective thinking: an experimental study with 1239 high school pupils. *J. exp. Educ.*, 1939, 8, 18-25.—"The results of this study indicate that it is possible for high school geometry teachers, under normal classroom conditions, to teach in such a way as to cultivate reflective thinking, that this can be done without sacrificing an understanding of geometric relationships, and that pupils at all IQ levels are capable of profiting from such instruction. The results also indicate that even what is commonly regarded as superior geometry teaching has little effect upon pupils' behavior in the direction of reflective thinking unless definite provisions are made to study methods of thinking as an important end in itself."—*H. W. Karn* (Pittsburgh).

1617. **Walker, G. A.** Achievement tests aid the C.C.C. educational advisors. *Occupations*, 1940, 18, 262-265.—The 1936 Iowa Every Pupil Test of Basic Skills was given to a C.C.C. company of 168 men. The results show the wide range of abilities in the company. The implications for an educational program are indicated.—*H. Schlosberg* (Brown).

1618. **Witty, P. A.** Children's interests and reading instruction. *Suppl. educ. Monogr.*, 1939, No. 49, 118-126.—A study of the interests of children, by means of the Witty-Kopel interest inventory, revealed that creative and individually expressive activities are conspicuously rare in their favorite play and recreational patterns. Standardized agencies such as the radio, movies, funnies, etc., appear to have exerted their influence on the children's interests. The author emphasizes the need for the study of the interests and activities of children in conjunction with other data when a reading diag-

nosis is being made.—*S. A. Kirk* (Milwaukee Teachers College).

[See also abstracts 1227, 1263, 1314, 1341, 1347, 1366, 1380, 1381, 1382, 1388, 1394, 1403, 1411, 1412, 1438, 1459, 1466, 1483, 1491, 1494, 1501, 1624, 1627.]

MENTAL TESTS

1619. **Baker, K. H.** Item validity by the analysis of variance: an outline of method. *Psychol. Rev.*, 1939, 3, 242-248.—A demonstration of the analysis of variance with a work sample specially designed for students in psychological research. The method is impracticable from the standpoint of time unless the items to be validated are in scale form. It is most effective in the study of questionnaire items.—*P. S. de Q. Cabot* (Simmons).

1620. **Balinsky, B., & Stone, I. R.** A new method of finding the intelligence quotient on Otis self-administering tests, higher examination. *J. soc. Psychol.*, 1939, 10, 459-465.—A corrected chronological age, lowering the divisor in the IQ formula at the upper age levels, gives increased reliability on the Otis test.—*G. Brighouse* (Occidental).

1621. **Dunlap, J. W., & Kroll, A.** Observations on the methodology in attitude scales. *J. soc. Psychol.*, 1939, 10, 475-487.—To determine the effects of rearranging the order of presentation of items on an attitude scale, the Thurstone-Peterson scale for measuring attitudes toward war was given in both its conventional random order and in an order of increasing disapproval; the Kelley-Remmers generalized attitude scale, applied to war, was given both in its regular order of descending scale values, and in a random order. These rearrangements did not affect means, dispersions, or reliabilities; therefore a descending scale value arrangement is to be preferred because of the greater ease of scoring. The correlation between the two scales was only .28, indicating that they are not measuring the same thing. The Kelley-Remmers scale proved more reliable for high-school boys. A change in marking procedure, whereby the subject is instructed to mark the three statements with which he is most in agreement, reduced the scoring time materially without sacrifice in reliability.—*G. Brighouse* (Occidental).

1622. **Hewitt, J. E.** Improving the construction of the essay and objective new type examination. *Res. Quart. Amer. Ass. Hlth phys. Educ.*, 1939, 10, 148-154.—The weakness of the essay type examination is not in the nature of the testing method itself, but in the questions selected. "Good essay questions should require a certain amount of analysis, interpretation, application of principles, synthesis, organization, comparison, criticism, and enumeration of facts." Objective type examinations have certain advantages: the subjective element is eliminated, sampling can be more extensive, scoring is easier, bluffing is minimized, and real thinking can be elicited by certain types of questions. Steps to

be followed in setting up such an examination are suggested.—*F. W. Finger* (Brown).

1623. Klopfer, B., & Davidson, H. H. **Record blank for the Rorschach method of personality diagnosis.** New York: Rorschach Inst., 1939. \$0.10.—This record blank is a 4-page folder including instructions to the examiner, space for a case history summary, a graph for the personality determinants, formulae for the necessary interpretative relationships, a tabulation sheet for tallying the original responses to each card and the total original and additional responses, spaces for calculating desired percentages, and a complete description of the refined scoring symbols. There is also a separate sheet of photographic reproductions "of the ten ink-blots in light gray shades which can be conveniently used for indicating the location of the responses."—*F. W. Finger* (Brown).

1624. Marinescu, E. R. **Explicarea termenului "aptitudine" și câteva metode de cercetare, după Theodor Ziehen.** (Explanation of the term "aptitude" and some research methods concerning it proposed by Th. Ziehen.) *J. Psihotek.*, 1939, 3, 126-127.—A review of the book by Ziehen on aptitudes: Über das Wesen der Beanlagung und ihre methodische Erforschung. French summary.—*N. Marginean* (Cluj, Rumania).

[See also abstracts 1266, 1442.]

CHILDHOOD AND ADOLESCENCE

1625. Acqua, M. **Gli esordi della personalità psichica umana. Contributo di osservazioni personali sul bambino dalla nascita fino a 6 anni.** (The human psychic personality in its beginning; observations made by the author on children from birth to the age of six years.) *Med. infant.*, 1938, No. 5, 140-148.—*R. Ricci* (Rome).

1626. Butterfield, O. M. **Love problems of adolescence.** New York: Emerson Books, 1939. Pp. viii + 212. \$2.25.—See XIII: 5954.

1627. Cheni, P. **Medicina preventiva e psicotecnica negli adolescenti.** (Preventive and psychotechnical medicine for adolescents.) Trieste: Cassa Provinciale di Malattia di Trieste, Gabinetto di Psicotecnica, 1939. Vol. 17.—The author describes the methods used by the Council for Psychotechnics at Trieste, which has been studying adolescents from 14 to 18, who are either just commencing their careers or are trying to choose a trade. Medico-psychotechnical methods are used to eliminate in advance persons who are unsuited to a given career and to bring out previously hidden talents. Cheni recommends that these methods be more widely used in order that somato-psychic aptitudes be better known before adolescents embark on their life work.—*R. Ricci* (Rome).

1628. Clark, W. R. **Radio listening activities of children.** *J. exp. Educ.*, 1939, 8, 44-48.—Responses to a comprehensive questionnaire obtained from white children in Washington, D. C., and Fairfax

County, Va., are analyzed in order to show the relation of age, sex, rural and urban life, intelligence scores, and school grades to radio-listening habits and interests. Material on the reactions of parents to the radio-listening activities of their children is included in the report.—*H. W. Karn* (Pittsburgh).

1629. Conn, J. H. **Factors influencing development of sexual attitudes and sexual awareness in children.** *Amer. J. Dis. Child.*, 1939, 58, 738-745.—*W. J. Brogden* (Wisconsin).

1630. Davis, K. **Extreme social isolation of a child.** *Amer. J. Sociol.*, 1940, 45, 554-565.—A girl over 5 years old was discovered in an upstairs room where she had apparently been incarcerated since babyhood. She was physically malnourished and apathetic as well as mentally blank. Taken first to a county home, then to a foster home, and finally to a school for defective children, she improved very slowly. She is still a virtually unsocialized creature, manifesting many parallels with other cases of isolated children and bearing out the Cooley-Mead-Dewey-Faris theory of isolation.—*D. L. Glick* (Brown).

1631. Freeman, F. N. **Intellectual growth based on longitudinal studies.** *Bull. Sch. Educ. Ind. Univ.*, 1938, 14, No. 4, 33-34.—Regular re-examination of children over long periods of time indicates variation in the rate of growth of individual children, and shows that the rate varies at different ages in no predictable manner. Growth curves based upon cross-sectional studies are not suitable as a basis for prediction in individual cases.—*C. M. Louttit* (Indiana).

1632. Gesell, A. **Charles Darwin and child development.** *Sci. Mon.*, N. Y., 1939, 49, 548-553.—A presentation of some notes and letters of the great naturalist which illustrate his profound interest in the phenomena of early infancy.—*O. P. Lester* (Buffalo).

1633. Jones, H. E. **Resources for the consultant.** *J. consult. Psychol.*, 1939, 3, 177-180.—An outline of the procedures of the California adolescent growth study, referring to anthropometric and physiological measurements, motor, intelligence and achievement tests, emotional characteristics and adjustment, and social behavior.—*P. S. de Q. Cabot* (Simmons).

1634. Kammerer, R. C. **An exploratory psychological study of crippled children.** *Quart. Bull. Ind. Univ. med. Cent.*, 1939, 1, 125-128.—A brief report of a study of 87 children with scoliosis and osteomyelitis who took a battery of tests and for each of whom an extensive case history was secured. The author concludes that "Whether maladjustment occurs seems to be dependent upon the number and severity of the problems with which the child is confronted and not alone on the presence of the crippling."—*C. M. Louttit* (Indiana).

1635. Kirkpatrick, M. E. **Some psychological factors in adoption.** *J. except. Child.*, 1939, 6, 68-71.—Many adoptions that turn out poorly could have

been prevented by a careful investigation of the adoptive parents and a thorough study of the child before adoption. Adoptions resulting from feelings of inferiority because of a childless marriage, or from mistaken notions of altruism, or from loneliness or a desire to be appreciated, or from pity, or the desire to repay a real or fancied debt to society, are not to be recommended. Agencies should make very careful study of all projected adoptions before giving their consent, and the courts should be guided by their advice.—*L. A. Averill* (Worcester Teachers College).

1636. **Lark-Horovitz, B.** On art appreciation of children: IV. Comparative study of white and Negro children, 13 to 15 years old. *J. educ. Res.*, 1939, 30, 258-285.—Analysis is made of the results for the white and Negro groups from the already published results on subject preference and portrait preference for pictures and preference for textiles. The analysis indicates that Negro and white children differ widely in their picture choices made for subject preference. They also differ as to the most preferred portrait in that study, but show similar interests as to the whole group of preferred portraits. They show great similarity in their choices of textile patterns. The reasons for the difference in preferences in the subject study are indicated as the result of a questionnaire given all of the children; color is more important for the Negro group.—*S. W. Fernberger* (Pennsylvania).

1637. **Morris, W. W.** Story remembering among children. *J. soc. Psychol.*, 1939, 10, 489-502.—A brief incident was related serially to 6 boys and 6 girls of the 7th and 8th grades. Titles and names, both of persons and places, were found to be most unstable. "Bulky" language was changed to familiar speech patterns. Incidents were frequently transposed.—*G. Brighthouse* (Occidental).

1638. **Pistor, F.** Measuring the time concepts of children. *J. educ. Res.*, 1939, 33, 293-300.—The analysis of the psychological background of time concepts in children involves such processes as distinguishing a past event or artifact from a present one; arranging events or artifacts in chronological order; recognizing unique elements in a present event or artifact or in a past event or artifact and selecting the dominant theme of a series of sequential events or artifacts and determining which is the next item necessary to continue the theme chronologically. In order to study some of these aspects of time concepts, the author has developed four tests, each consisting of 72 items appearing in elementary social-studies courses. These cover social, industrial, political, and military history, and are in the form of simple pictures, examples of which are given in the text. These tests were given to two groups of 60 students each, one in a junior college and the other in a course in adult education. Validity and reliability results are given which indicate that the tests

have a high predictive value.—*S. W. Fernberger* (Pennsylvania).

1639. **Rogerson, B. C. F., & Rogerson, C. H.** Feeding in infancy and subsequent psychological difficulties. *J. ment. Sci.*, 1939, 85, 1163-1182.—Two groups of infants were selected from presumably normal children, members of one group showing feeding difficulties in infancy and members of the other group presenting no such difficulties. When the two groups were reviewed at school age, evidence suggesting a positive association between feeding difficulties in infancy and subsequent psychological difficulties (lower school achievement, appetite disorder, sleep disorder, enuresis, fears, nervousness) was found.—*D. G. Ryans* (Cooperative Test Service).

1640. **Rosander, A. C.** Age and sex patterns of social attitudes. *J. educ. Psychol.*, 1939, 30, 481-496.—Some of the attitudes were represented by reported overt behavior while others were expressed in beliefs or opinions. Between 1300 and 1600 youths were interviewed for each of 9 age groups. Among the attitudes which change little or not at all between the ages of 15 and 25 are opinions on kind and level of government relief, minimum wages and maximum hours, child labor, sex education in schools, and opinion on war. Attitudes which show age changes pertain to drinking (38% of 13-year-old males responded that they drank, while 75% of the 24-year-olds indicated that they drank "to some extent or degree however slight"), voting, church attendance, war action, wages received, economic value of schooling, and sex education in the elementary grades.—*R. M. Bellows* (Maryland).

1641. **Sancipriano, M.** La formazione spirituale del bambino lattante. (Mental development in the nursing.) *Pediat. med.-prat.*, 1938, 13, 369-385.—*R. Ricci* (Rome).

1642. **Schroeder, P. L.** Behavior problems of adolescents. *Amer. J. Dis. Child.*, 1939, 58, 168-174.—A preliminary study of 51 cases of boys and girls with behavior difficulties reveals the following tentative findings: The intelligence levels of this group showed a fairly normal distribution curve, slightly skewed toward the lower end. Psychiatric diagnoses fell under 13 different classifications. The most common diagnosis was feeble-mindedness; the next most common were adolescent rebellion and emotional dependence. The attitudes of the adolescents making up this group were conservative.—*W. J. Brogden* (Wisconsin).

1643. **Schwung, H.** Entwicklungsgesichtspunkte bei der Durchführung der Eignungsuntersuchung. (Genetic viewpoints in the application of aptitude tests.) *Industr. Psychotech.*, 1939, 16, 206-213.—In children the conceptual-verbal abilities, as well as those involving grasp of spatial relations, do not increase with age in a smooth continuous way. The period of puberty is of special significance.—*D. M. Purdy* (Mills).

[See also abstracts 1266, 1410, 1422, 1430, 1472.]

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